



## ANALYTICAL DATA REPORT

JMC Environmental Consultants  
2109 Bridge Avenue  
Building B  
Point Pleasant, NJ 08742

Project Name: ARSYNCO  
IAL Case Number: E13-10300

These data have been reviewed and accepted by:

A handwritten signature in black ink, appearing to read "Michael H. Lefkin".

Michael H. Lefkin, Ph.D.  
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0699), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

# *Sample Summary*

*IAL Case No.*

**E13-10300**

*Client JMC Environmental Consultants*

*Project ARSYNCO*

*Received On 10/16/2013@17:05*

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Depth Top/Bottom</u>	<u>Sampling Time</u>	<u>Matrix</u>	<u># of Container</u>
10300-001	CC-39S(5.0-6.0)	5.0/6.0	10/16/2013@09:55	Soil	1
10300-002	II-35(4.0-5.0)	4.0/5.0	10/16/2013@10:33	Soil	1
10300-003	CC-40S(5.0-6.0)	5.0/6.0	10/16/2013@11:25	Soil	1
10300-004	BB-43R(3.0-4.0)	3.0/4.0	10/16/2013@11:50	Soil	1
10300-005	DD-43/EE-44(4.0-5.0)	4.0/5.0	10/16/2013@13:30	Soil	1
10300-006	CC-44N(2.0-3.0)	2.0/3.0	10/16/2013@13:50	Soil	1
10300-007	CC-44N(3.0-4.0)	3.0/4.0	10/16/2013@13:51	Soil	1
10300-008	FF-43N(3.0-4.0)	3.0/4.0	10/16/2013@15:01	Soil	1
10300-009	FB-23	n/a	10/16/2013@15:10	Aqueous	2

# INTEGRATED ANALYTICAL LABORATORIES, LLC.

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This report was finalized on November 04, 2013

\* Methodology is included in the IAL Project Information Page

# INTEGRATED ANALYTICAL LABORATORIES, LLC.

## DEFINITIONS / QUALIFIERS

### DATA QUALIFIERS

- B Indicates the analyte was found in the associated method blank as well as in the sample.  
It indicates probable laboratory contamination.
- C Indicates analyte is a common laboratory contaminant.
- D Indicates analyte was reported from diluted analysis.
- E Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument.
- J Indicates an estimated value. This flag is used when the concentration in the sample is below the RL but above the MDL or for qualification of tentatively identified compounds.
- N Presumptive evidence of a compound from the use of GC/MS library search.
- X Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
- Z Indicates internal standard failure. Sample results are either biased high or biased low.

### REPORTING DEFINITIONS

RL Reporting Limit. The RL is determined by the lowest concentration in the calibration curve. For most Wet Chemistry methods, the RL is defined by using the PQL.

MDL Method Detection Limit as determined according to 40CFR Part 136 Appendix B.

PQL Practical Quantitation Limit. Usually defined as a value 3-5 times the MDL.

ND Indicates analyte was analyzed for but not detected above the MDL.

DF Dilution Factor

LCS Laboratory Control Sample

LCSD Laboratory Control Sample Duplicate

MS Matrix Spike

MSD Matrix Spike Duplicate

DUP Duplicate

## **CONFORMANCE / NON-CONFORMANCE SUMMARIES**

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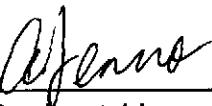
**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**CONFORMANCE / NONCONFORMANCE SUMMARY**

Integrated Analytical Laboratories, LLC. received one (1) aqueous and eight (8) soil sample(s) from JMC Environmental Consultants (IAL SDG # E13-10300, Project: ARSYNCO) on October 16, 2013 for the analysis of:

(9) TCL PCB

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

  
Reviewed by

11/1/13  
Date

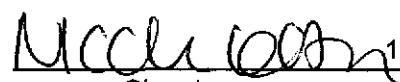
# SAMPLE DELIVERY GROUP CASE NARRATIVE

**SDG#: E13-10300**

**PCB By 8082A**

<b>Batch ID:</b> 131021-07	<b>Matrix:</b> Soil
----------------------------	---------------------

- QC**
- Calibration Curve met QC criteria.
  - Surrogate Percent Recovery did not meet QC criteria. The surrogate for sample -006 was diluted out.
  - Method Blank met QC criteria.
  - LCS Percent Recovery met QC criteria.
  - MS/MSD Percent Recovery met QC criteria.
  - RPD between MS/MSD met QC criteria.
  - The following samples were cleaned up using method 3660B to remove sulfur: 001, 002, 003, 004, 005, 006, 007, 008
- E13-10300**
- All samples were extracted within holding time.
  - All samples were analyzed within holding time.
  - Retention Time Shift met QC criteria.
  - Sample 10300 -006 was run with 100x dilution and sample -008 with 2x dilution due to high concentrations of the target compounds. No dilution was performed for samples 10300 -001 through -005, and -007.

  
Signature      Date  
10/28/2013

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**SDG#: E13-10300**

**PCB By 8082A**

<b>Batch ID: 131023-07</b>	<b>Matrix: Aqueous</b>
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- QC**
- Calibration Curve met QC criteria.
  - Surrogate Percent Recovery met QC criteria.
  - Method Blank met QC criteria.
  - LCS Percent Recovery met QC criteria.
  - MS/MSD Percent Recovery met QC criteria.
  - RPD between MS/MSD met QC criteria.
  - The following samples were cleaned up using method 3660B to remove sulfur: 009
  - The following samples were cleaned up using method 3665A: 009
- E13-10300**
- All samples were extracted within holding time.
  - All samples were analyzed within holding time.
  - Retention Time Shift met QC criteria.
  - No dilution was performed for sample 10300 -009.

Nicole Woods 10/24/2013  
Signature Date  
E13-10300 0005

## **RESULTS SUMMARY REPORT**

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**INTEGRATED ANALYTICAL LABORATORIES, LLC.**

**SUMMARY REPORT**

**Client: JMC Environmental Consultants**  
**Project: ARSYNCO**  
**Lab Case No.: E13-10300**

Lab ID:	10300-009								
Client ID:	FB-23								
Matrix:	Aqueous								
Sampled Date	10/16/13	Conc	Q	MDL					
<b>PARAMETER(Units)</b>									
PCB's (Units)	<i>(mg/L-ppm)</i>								
Aroclor-1016	ND	0.00002							
Aroclor-1221	ND	0.00002							
Aroclor-1232	ND	0.00002							
Aroclor-1242	ND	0.00002							
Aroclor-1248	ND	0.00002							
Aroclor-1254	ND	0.00002							
Aroclor-1260	ND	0.00002							
Aroclor-1262	ND	0.00002							
Aroclor-1268	ND	0.00002							
PCBs	ND								
Lab ID:	10300-001	10300-002	10300-003	10300-004					
Client ID:	CC-39S(5.0-6.0)	II-35(4.0-5.0)	CC-40S(5.0-6.0)	BB-43R(3.0-4.0)					
Depth:	5.0/6.0	4.0/5.0	5.0/6.0	3.0/4.0					
Matrix:	Soil	Soil	Soil	Soil					
Sampled Date	10/16/13	10/16/13	10/16/13	10/16/13					
<b>PARAMETER(Units)</b>	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	<i>(mg/Kg-ppm)</i>		<i>(mg/Kg-ppm)</i>		<i>(mg/Kg-ppm)</i>		<i>(mg/Kg-ppm)</i>		
Aroclor-1016	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
Aroclor-1221	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
Aroclor-1232	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
Aroclor-1242	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
Aroclor-1248	0.601	0.020	0.062	0.019	0.082	0.020	0.246	0.020	
Aroclor-1254	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
Aroclor-1260	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
Aroclor-1262	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
Aroclor-1268	ND	0.020	ND	0.019	ND	0.020	ND	0.020	
PCBs	0.601		0.062		0.082		0.246		
Lab ID:	10300-005	10300-006	10300-007	10300-008					
Client ID:	DD-43/EE-44(4.0-5.0)	CC-44N(2.0-3.0)	CC-44N(3.0-4.0)	FF-43N(3.0-4.0)					
Depth:	4.0/5.0	2.0/3.0	3.0/4.0	3.0/4.0					
Matrix:	Soil	Soil	Soil	Soil					
Sampled Date	10/16/13	10/16/13	10/16/13	10/16/13					
<b>PARAMETER(Units)</b>	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCB's (Units)	<i>(mg/Kg-ppm)</i>		<i>(mg/Kg-ppm)</i>		<i>(mg/Kg-ppm)</i>		<i>(mg/Kg-ppm)</i>		
Aroclor-1016	ND	0.018	ND	0.199	ND	0.018	ND	0.037	
Aroclor-1221	ND	0.018	ND	0.199	ND	0.018	ND	0.037	
Aroclor-1232	ND	0.018	ND	0.199	ND	0.018	ND	0.037	
Aroclor-1242	ND	0.018	ND	0.199	5.73	0.018	ND	0.037	
Aroclor-1248	0.443	0.018	855 D	3.99	ND	0.018	7.96 D	0.037	
Aroclor-1254	ND	0.018	ND	0.199	ND	0.018	ND	0.037	
Aroclor-1260	ND	0.018	ND	0.199	ND	0.018	ND	0.037	
Aroclor-1262	ND	0.018	ND	0.199	ND	0.018	ND	0.037	
Aroclor-1268	ND	0.018	ND	0.199	ND	0.018	ND	0.037	
PCBs	0.443		855 D		5.73		7.96 D		

ND = Analyzed for but Not Detected at the MDL

D = The compound was reported from the Diluted analysis

E13-10300 0007

## ANALYTICAL RESULTS

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**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-001  
Client ID: CC-39S(5)  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/22/2013  
Data file: R4928.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.23g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 22.4

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.049	0.020
Aroclor-1221	ND		0.049	0.020
Aroclor-1232	ND		0.049	0.020
Aroclor-1242	ND		0.049	0.020
Aroclor-1248	0.601		0.049	0.020
Aroclor-1254	ND		0.049	0.020
Aroclor-1260	ND		0.049	0.020
Aroclor-1262	ND		0.049	0.020
Aroclor-1268	ND		0.049	0.020
PCBs	0.601		0.049	0.020

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-002  
Client ID: II-35(4.  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/22/2013  
Data file: R4929.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.49g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 22.0

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.047	0.019
Aroclor-1221	ND		0.047	0.019
Aroclor-1232	ND		0.047	0.019
Aroclor-1242	ND		0.047	0.019
Aroclor-1248	0.062		0.047	0.019
Aroclor-1254	ND		0.047	0.019
Aroclor-1260	ND		0.047	0.019
Aroclor-1262	ND		0.047	0.019
Aroclor-1268	ND		0.047	0.019
PCBs	0.062		0.047	0.019

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-003  
Client ID: CC-40S(5)  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/22/2013  
Data file: R4930.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.20g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 21.4

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.049	0.020
Aroclor-1221	ND		0.049	0.020
Aroclor-1232	ND		0.049	0.020
Aroclor-1242	ND		0.049	0.020
Aroclor-1248	0.082		0.049	0.020
Aroclor-1254	ND		0.049	0.020
Aroclor-1260	ND		0.049	0.020
Aroclor-1262	ND		0.049	0.020
Aroclor-1268	ND		0.049	0.020
PCBs	0.082		0.049	0.020

D --- Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-004  
Client ID: BB-43R(3)  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/23/2013  
Data file: R4949.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.52g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 26.9

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	0.246		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	0.246		0.050	0.020

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-005  
Client ID: DD-43/EE  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/22/2013  
Data file: R4932.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.65g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 21.1

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.045	0.018
Aroclor-1221	ND		0.045	0.018
Aroclor-1232	ND		0.045	0.018
Aroclor-1242	ND		0.045	0.018
Aroclor-1248	0.443		0.045	0.018
Aroclor-1254	ND		0.045	0.018
Aroclor-1260	ND		0.045	0.018
Aroclor-1262	ND		0.045	0.018
Aroclor-1268	ND		0.045	0.018
PCBs	0.443		0.045	0.018

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-006  
Client ID: CC-44N(2)  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/22/2013  
Data file: R4933.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.12g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 5  
% Moisture: 60.8

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.498	0.199
Aroclor-1221	ND		0.498	0.199
Aroclor-1232	ND		0.498	0.199
Aroclor-1242	ND		0.498	0.199
Aroclor-1248	801	DE	0.498	0.199
Aroclor-1254	ND		0.498	0.199
Aroclor-1260	ND		0.498	0.199
Aroclor-1262	ND		0.498	0.199
Aroclor-1268	ND		0.498	0.199
PCBs	801	DE	0.498	0.199

D --- Dilution Performed

B --- Compound detected in Blank

J --- Value Less than RL &amp; great than MDL

C --- Common laboratory contamination

E --- Exceeds upper level of Calibration curve

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-006DL  
Client ID: CC-44N(2)  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/23/2013  
Data file: R4950.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.12g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 100  
% Moisture: 60.8

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		9.96	3.99
Aroclor-1221	ND		9.96	3.99
Aroclor-1232	ND		9.96	3.99
Aroclor-1242	ND		9.96	3.99
Aroclor-1248	855	D	9.96	3.99
Aroclor-1254	ND		9.96	3.99
Aroclor-1260	ND		9.96	3.99
Aroclor-1262	ND		9.96	3.99
Aroclor-1268	ND		9.96	3.99
PCBs	855	D	9.96	3.99

D — Dilution Performed

J --- Value Less than RL & great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-007  
Client ID: CC-44N(3)  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/22/2013  
Data file: R4934.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.83g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 1  
% Moisture: 25.2

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.046	0.018
Aroclor-1221	ND		0.046	0.018
Aroclor-1232	ND		0.046	0.018
Aroclor-1242	5.73		0.046	0.018
Aroclor-1248	ND		0.046	0.018
Aroclor-1254	ND		0.046	0.018
Aroclor-1260	ND		0.046	0.018
Aroclor-1262	ND		0.046	0.018
Aroclor-1268	ND		0.046	0.018
PCBs	5.73		0.046	0.018

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-008  
Client ID: FF-43N(3)  
Date Received: 10/16/2013  
Date Extracted: 10/21/2013  
Date Analyzed: 10/23/2013  
Data file: R4951.D

GC Column: DB-5/DB1701P  
Sample wt/vol: 5.69g  
Matrix-Units: Soil-mg/Kg (ppm)  
Dilution Factor: 2  
% Moisture: 23.8

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.092	0.037
Aroclor-1221	ND		0.092	0.037
Aroclor-1232	ND		0.092	0.037
Aroclor-1242	ND		0.092	0.037
Aroclor-1248	7.96	D	0.092	0.037
Aroclor-1254	ND		0.092	0.037
Aroclor-1260	ND		0.092	0.037
Aroclor-1262	ND		0.092	0.037
Aroclor-1268	ND		0.092	0.037
PCBs	7.96	D	0.092	0.037

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: E13-10300-009

Client ID: FB-23

Date Received: 10/16/2013

Date Extracted: 10/23/2013

Date Analyzed: 10/23/2013

Data file: R4957.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous-mg/L (ppm)

Dilution Factor: 1

% Moisture: 100

<b>Compound</b>	<b>Concentration</b>	<b>Q</b>	<b>RL</b>	<b>MDL</b>
Aroclor-1016	ND		0.00005	0.00002
Aroclor-1221	ND		0.00005	0.00002
Aroclor-1232	ND		0.00005	0.00002
Aroclor-1242	ND		0.00005	0.00002
Aroclor-1248	ND		0.00005	0.00002
Aroclor-1254	ND		0.00005	0.00002
Aroclor-1260	ND		0.00005	0.00002
Aroclor-1262	ND		0.00005	0.00002
Aroclor-1268	ND		0.00005	0.00002
PCBs	ND		0.00005	0.00002

D — Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

**PCB DATA**

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**PCB QC SUMMARY**

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## PCB SURROGATE PERCENT RECOVERY SUMMARY

**Date Analyzed:** 10/22/2013

Client ID	Sample ID	Matrix	TCMX 1		DCB 1		TCMX 2		DCB 2	
			% rec	#	% rec	#	% rec	#	% rec	#
PCB	BLKS131021-07	SOIL	99		64		91		56	
PCB	LCSS131021-07	SOIL	100		67		91		58	
S-108	E13-10295-001	SOIL	110		73		101		69	
S-109	E13-10295-002	SOIL	92		62		82		65	
S-110	E13-10295-003	SOIL	99		65		86		63	
CC-39S(5)	E13-10300-001	SOIL	110		77		98		74	
II-35(4)	E13-10300-002	SOIL	114		88		101		69	
CC-40S(5)	E13-10300-003	SOIL	108		82		95		65	
DD-43/EE	E13-10300-005	SOIL	111		81		99		73	
CC-44N(2)	E13-10300-006	SOIL	597	M	639	M	65		1187	M
CC-44N(3)	E13-10300-007	SOIL	98		96		84		101	
SS-1	E13-10334-001	SOIL	109		78		93		90	
SS-2	E13-10334-002	SOIL	101		80		86		71	
SS-3	E13-10334-003	SOIL	102		78		88		63	
SS-4	E13-10334-004	SOIL	93		67		79		55	
SW-1A	E13-10345-001	SOIL	108		89		93		67	
SW-2A	E13-10345-002	SOIL	76		65		62		60	
SW-3A	E13-10345-003	SOIL	96		89		82		60	
SW-4A	E13-10345-004	SOIL	97		89		82		55	
SW-1B	E13-10345-005	SOIL	99		85		84		63	
PCB	10345-005MS	SOIL	97		65		82		55	
PCB	10345-005MSD	SOIL	96		71		81		61	
BB-43R(3)	E13-10300-004	SOIL	116		81		101		78	
CC-44N(2)	E13-10300-006DL	SOIL	0	D	0	D	0	D	0	D
FF-43N(3)	E13-10300-008	SOIL	111		83		95		101	

## Surrogate OC Limits

Sof

#### Aqueous/Leachate

TCMX = Tetrachloro-*m*-xylene

30-150

30-150

DCB = Decachlorobiphenyl

30-150

30-150

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

## M Matrix interference

# PCB SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 10/22/2013

Client ID	Lab Sample ID	Matrix	TCMX 1 % rec #	DCB 1 % rec #	TCMX 2 % rec #	DCB 2 % rec #
PCB	BLKA131021-17	AQUEOUS	88	79	95	90
PCB	LCSA131021-17	AQUEOUS	85	85	90	88
OUTFALL	E13-10256-001	WASTE WATER	71	69	75	100
FB-21	E13-10192-011	AQUEOUS	88	75	94	88
FB-22	E13-10227-014	AQUEOUS	91	75	97	103
PCB	E13-10256-001MS	WASTE WATER	78	85	84	103
PCB	E13-10256-001MS	WASTE WATER	74	74	80	93

Surrogate QC Limits

TCMX = Tetrachloro-m-xylene

DCB = Decachlorobiphenyl

<u>Soil</u>	<u>Aqueous</u>
30-150	30-150
30-150	30-150

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

## PCB SURROGATE PERCENT RECOVERY SUMMARY

**Date Analyzed:** 10/23/2013

Client ID	Sample ID	Matrix	TCMX 1		DCB 1		TCMX 2		DCB 2	
			% rec	#	% rec	#	% rec	#	% rec	#
PCB	BLKA131023-07	AQUEOUS	99		79		87		62	
PCB	LCSA131023-07	AQUEOUS	99		79		85		64	
ES-PTCB-	E13-10415-001	AQUEOUS	83		72		72		64	
ES-PTCB-	E13-10415-002	AQUEOUS	77		70		66		61	
FB-23	E13-10300-009	AQUEOUS	93		68		80		58	
TW-13/22	E13-10410-012	AQUEOUS	75		61		63		47	
FB-24	E13-10361-010	AQUEOUS	94		73		81		54	
EFFLUENT	E13-10376-001	AQUEOUS	66		68		57		64	

Surrogate QC Limits

Soil      Aqueous

TCMX = Tetrachloro-m-xylene

30-150      30-150

DCB = Decachlorobiphenyl

30-150      30-150

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

**SOIL PCB LCS ACCURACY RECOVERY**

Matrix spike Lab sample ID: LCSS131021-07

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	439.3	88	40 - 140
Aroclor-1260	500.0	0.0	414.0	83	40 - 140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

Spike Recovery: 0 out of 2 outside limits

# AQUEOUS PCB LCS ACCURACY RECOVERY

Matrix spike Lab sample ID: LCSA131023-07

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
<b>Aroclor-1016</b>	500.0	0.0	357.0	71	40 - 140
<b>Aroclor-1260</b>	500.0	0.0	367.9	74	40 - 140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

Spike Recovery: 0 out of 2 outside limits

**SOIL PCB MS/MSD ACCURACY RECOVERY**

Matrix spike Lab sample ID:

E13-10345-005

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONC. (ug/Kg)	MS CONC. (ug/Kg)	MS % REC #	QC LIMITS REC.
Aroclor-1016	500.0	0.0	394.7	79	40 - 140
Aroclor-1260	500.0	0.0	380.8	76	40 - 140

Compound	SAMPLE CONC. (ug/Kg)	MSD CONC. (ug/Kg)	MSD #	% REC	% RPD #	QC LIMITS RPD	REC.
Aroclor-1016	0.0	398.3	80	1	50	40 - 140	
Aroclor-1260	0.0	393.8	79	4	50	40 - 140	

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

**AQUEOUS PCB MS/MSD ACCURACY RECOVERY**

Matrix spike Lab sample ID: E13-10256-001

Compound	SPIKE ADDED (ug/L)	SAMPLE CONC. (ug/L)	MS CONC. (ug/L)	MS % REC #	QC LIMITS REC.
<b>Aroclor-1016</b>	500.0	0.0	412.4	82	40 - 140
<b>Aroclor-1260</b>	500.0	0.0	447.4	89	40 - 140

Compound	SAMPLE CONC. (ug/L)	MSD CONC. (ug/L)	MSD % # REC	% RPD #	QC LIMITS RPD	REC.
<b>Aroclor-1016</b>	0.0	383.8	77	6	50	40 - 140
<b>Aroclor-1260</b>	0.0	426.8	85	5	50	40 - 140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

NC Non calculable

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 4 outside limits

**PCB METHOD BLANK SUMMARY**

Lab File ID: R4922.D

Instrument ID: GC-R

Date Extracted: 10/21/2013

Matrix: SOIL

Date Analyzed: 10/22/2013

Time Analyzed: 15:28

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

<b>Client ID</b>	<b>Lab Sample ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
PCB	LCSS131021-07	10/22/2013	15:45
S-108	E13-10295-001	10/22/2013	16:25
S-109	E13-10295-002	10/22/2013	17:27
S-110	E13-10295-003	10/22/2013	17:44
CC-39S(5	E13-10300-001	10/22/2013	19:47
II-35(4.	E13-10300-002	10/22/2013	20:04
CC-40S(5	E13-10300-003	10/22/2013	20:21
DD-43/EE	E13-10300-005	10/22/2013	20:56
CC-44N(2	E13-10300-006	10/22/2013	21:14
CC-44N(3	E13-10300-007	10/22/2013	21:31
SS-1	E13-10334-001	10/22/2013	22:06
SS-2	E13-10334-002	10/22/2013	22:23
SS-3	E13-10334-003	10/22/2013	22:41
SS-4	E13-10334-004	10/22/2013	22:58
SW-1A	E13-10345-001	10/22/2013	23:51
SW-2A	E13-10345-002	10/23/2013	00:08
SW-3A	E13-10345-003	10/23/2013	00:26
SW-4A	E13-10345-004	10/23/2013	00:43
SW-1B	E13-10345-005	10/23/2013	01:00
PCB	10345-005MS	10/23/2013	01:18
PCB	10345-005MSD	10/23/2013	01:35
BB-43R(3	E13-10300-004	10/23/2013	11:49
CC-44N(2	E13-10300-006DL	10/23/2013	12:07
FF-43N(3	E13-10300-008	10/23/2013	12:24

## PCB METHOD BLANK SUMMARY

Lab File ID: Y2409.D

Instrument ID: GC-Y

Date Extracted: 10/21/2013

Matrix: AQUEOUS

Date Analyzed: 10/22/2013

Time Analyzed: 21:25

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
PCB	LCSA131021-17	10/22/2013	21:43
OUTFALL	E13-10256-001	10/22/2013	22:00
FB-21	E13-10192-011	10/22/2013	22:17
FB-22	E13-10227-014	10/22/2013	22:35
PCB	E13-10256-001MS	10/22/2013	22:52
PCB	E13-10256-001MSD	10/22/2013	23:09

## PCB METHOD BLANK SUMMARY

Lab File ID: R4953.D

Instrument ID: GC-R

Date Extracted: 10/23/2013

Matrix: AQUEOUS

Date Analyzed: 10/23/2013

Time Analyzed: 13:58

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS or LCSD, MS or MSD:

<b>Client ID</b>	<b>Lab Sample ID</b>	<b>Date Analyzed</b>	<b>Time Analyzed</b>
PCB	LCSA131023-07	10/23/2013	14:16
ES-PTCB-	E13-10415-001	10/23/2013	14:41
ES-PTCB-	E13-10415-002	10/23/2013	14:59
FB-23	E13-10300-009	10/23/2013	15:16
TW-13/22	E13-10410-012	10/23/2013	15:34
FB-24	E13-10361-010	10/23/2013	15:51
EFFLUENT	E13-10376-001	10/23/2013	16:08

# AROCLOL INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013

Instrument ID: GC-Y  
GC Column (1st): DB-5

Data File: Y1850.D Y1849.D Y1848.D Y1847.D Y1846.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.23	3.23	3.23	3.23	3.23	3.23	3.16	3.30
Aroclor-1016 {2}	4.05	4.05	4.05	4.05	4.05	4.05	3.98	4.12
Aroclor-1016 {3}	4.60	4.60	4.60	4.60	4.60	4.60	4.53	4.67
Aroclor-1016 {4}	5.10	5.10	5.10	5.10	5.10	5.10	5.03	5.17
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.14				2.07	2.21
Aroclor-1221 {2}			3.02				2.95	3.09
Aroclor-1221 {3}			3.15				3.08	3.22
Aroclor-1221 {4}			3.22				3.15	3.29
Aroclor-1221 {5}			3.81				3.74	3.88
Aroclor-1232			3.23				3.16	3.30
Aroclor-1232 {2}			4.05				3.98	4.12
Aroclor-1232 {3}			4.71				4.64	4.78
Aroclor-1232 {4}			5.30				5.23	5.37
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.05				3.98	4.12
Aroclor-1242 {2}			4.98				4.91	5.05
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			5.99				5.92	6.06
Aroclor-1242 {5}			6.26				6.19	6.33
Aroclor-1248			4.45				4.37	4.53
Aroclor-1248 {2}			4.98				4.90	5.06
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			5.99				5.91	6.07
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.82				6.74	6.90
Aroclor-1254 {3}			6.99				6.90	7.08
Aroclor-1254 {4}			7.42				7.33	7.51
Aroclor-1254 {5}			8.26				8.17	8.35
Aroclor-1260	8.26	8.26	8.26	8.26	8.26	8.26	7.36	9.16
Aroclor-1260 {2}	8.94	8.94	8.94	8.94	8.93	8.94	8.04	9.84
Aroclor-1260 {3}	9.41	9.41	9.41	9.41	9.41	9.41	8.51	10.31
Aroclor-1260 {4}	9.89	9.89	9.89	9.89	9.89	9.89	8.99	10.79
Aroclor-1260 {5}	10.95	10.95	10.95	10.95	10.95	10.95	10.05	11.85

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013      Instrument ID: GC-Y  
 GC Column (1st): DB-5

Data File: Y1850.D Y1849.D Y1848.D Y1847.D Y1846.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	464323	441679	382895	349177	333589	394332	14.46
Aroclor-1016 {2}	631313	643566	521731	477189	458454	546451	15.79
Aroclor-1016 {3}	806143	774449	662509	606621	589177	687780	14.26
Aroclor-1016 {4}	363540	363516	332688	305606	289774	331025	10.09
Aroclor-1016 {5}	628860	642038	551930	503774	487757	562872	12.52
Aroclor-1221			199877				
Aroclor-1221 {2}			313557				
Aroclor-1221 {3}			198732				
Aroclor-1221 {4}			681302				
Aroclor-1221 {5}			164392				
Aroclor-1232			508390				
Aroclor-1232 {2}			304333				
Aroclor-1232 {3}			272852				
Aroclor-1232 {4}			292921				
Aroclor-1232 {5}			379208				
Aroclor-1242			445331				
Aroclor-1242 {2}			289404				
Aroclor-1242 {3}			394283				
Aroclor-1242 {4}			595594				
Aroclor-1242 {5}			525307				
Aroclor-1248			1072563				
Aroclor-1248 {2}			618287				
Aroclor-1248 {3}			795414				
Aroclor-1248 {4}			1263310				
Aroclor-1248 {5}			998553				
Aroclor-1254			1250957				
Aroclor-1254 {2}			821044				
Aroclor-1254 {3}			1480779				
Aroclor-1254 {4}			1606933				
Aroclor-1254 {5}			1429697				
Aroclor-1260	1799563	1887490	1561779	1407648	1377152	1606726	14.27
Aroclor-1260 {2}	884011	896189	732678	641350	641368	759119	16.51
Aroclor-1260 {3}	2064481	2110924	1815054	1604501	1536563	1826305	14.25
Aroclor-1260 {4}	982911	1147466	964107	838195	828743	952284	13.64
Aroclor-1260 {5}	415694	477377	462681	369882	339327	412992	14.28
Average %RSD						14.01	

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013

Instrument ID: GC-Y  
GC Column (2nd): DB-1701P

Data File: Y1850.C Y1849.C Y1848.C Y1847.C Y1846.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.76	3.76	3.76	3.76	3.76	3.76	3.69	3.83
Aroclor-1016 {2}	4.36	4.36	4.36	4.36	4.36	4.36	4.29	4.43
Aroclor-1016 {3}	5.11	5.11	5.11	5.11	5.11	5.11	5.04	5.18
Aroclor-1016 {4}	5.32	5.32	5.32	5.32	5.32	5.32	5.25	5.39
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.44				2.37	2.51
Aroclor-1221 {2}			3.44				3.37	3.51
Aroclor-1221 {3}			3.67				3.60	3.74
Aroclor-1221 {4}			3.77				3.70	3.84
Aroclor-1221 {5}			5.11				5.04	5.18
Aroclor-1232			3.76				3.69	3.83
Aroclor-1232 {2}			4.74				4.67	4.81
Aroclor-1232 {3}			5.32				5.25	5.39
Aroclor-1232 {4}			5.49				5.42	5.56
Aroclor-1232 {5}			6.09				6.02	6.16
Aroclor-1242			4.74				4.67	4.81
Aroclor-1242 {2}			5.49				5.42	5.56
Aroclor-1242 {3}			6.09				6.02	6.16
Aroclor-1242 {4}			6.24				6.17	6.31
Aroclor-1242 {5}			6.79				6.72	6.86
Aroclor-1248			5.11				5.03	5.19
Aroclor-1248 {2}			5.69				5.61	5.77
Aroclor-1248 {3}			6.09				6.01	6.17
Aroclor-1248 {4}			6.24				6.16	6.32
Aroclor-1248 {5}			6.59				6.51	6.67
Aroclor-1254			7.09				7.01	7.17
Aroclor-1254 {2}			7.67				7.59	7.75
Aroclor-1254 {3}			8.29				8.20	8.38
Aroclor-1254 {4}			8.51				8.42	8.60
Aroclor-1254 {5}			9.10				9.01	9.19
Aroclor-1260	7.85	7.85	7.85	7.85	7.85	7.85	6.95	8.75
Aroclor-1260 {2}	8.11	8.11	8.11	8.11	8.11	8.11	7.21	9.01
Aroclor-1260 {3}	9.70	9.70	9.70	9.70	9.70	9.70	8.80	10.60
Aroclor-1260 {4}	10.20	10.20	10.20	10.20	10.20	10.20	9.30	11.10
Aroclor-1260 {5}	10.79	10.79	10.79	10.79	10.79	10.79	9.89	11.69

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013      Instrument ID: GC-Y  
 GC Column (2nd): DB-1701P

Data File: Y1850.C Y1849.C Y1848.C Y1847.C Y1846.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	840261	856585	714298	646843	597927	731183	15.71
Aroclor-1016 {2}	1833596	1816776	1547682	1378645	1353928	1586125	14.54
Aroclor-1016 {3}	4371716	4236799	3569561	3258945	3150851	3717574	15.04
Aroclor-1016 {4}	1871668	1849704	1597815	1454198	1410182	1636714	13.20
Aroclor-1016 {5}	1442767	1421476	1238979	1138128	1115123	1271295	12.13
Aroclor-1221			340703				
Aroclor-1221 {2}			617655				
Aroclor-1221 {3}			417322				
Aroclor-1221 {4}			1522237				
Aroclor-1221 {5}			291032				
Aroclor-1232			973678				
Aroclor-1232 {2}			425526				
Aroclor-1232 {3}			940006				
Aroclor-1232 {4}			735287				
Aroclor-1232 {5}			1002709				
Aroclor-1242			611221				
Aroclor-1242 {2}			1032956				
Aroclor-1242 {3}			1271440				
Aroclor-1242 {4}			1106793				
Aroclor-1242 {5}			2184386				
Aroclor-1248			2396754				
Aroclor-1248 {2}			3539345				
Aroclor-1248 {3}			2550731				
Aroclor-1248 {4}			2230079				
Aroclor-1248 {5}			1294923				
Aroclor-1254			2883717				
Aroclor-1254 {2}			2180898				
Aroclor-1254 {3}			1865030				
Aroclor-1254 {4}			1138169				
Aroclor-1254 {5}			2980480				
Aroclor-1260	1380266	1597791	1348190	1285120	1250722	1372418	9.90
Aroclor-1260 {2}	2170235	2320146	1904498	1826388	1764884	1997230	11.90
Aroclor-1260 {3}	1830758	1876902	1742155	1590179	1579596	1723918	7.88
Aroclor-1260 {4}	3775292	4234437	3909868	3531301	3570473	3804274	7.51
Aroclor-1260 {5}	2569926	3071676	2828424	2567649	2559367	2719408	8.36
Average %RSD						11.62	

# AROCLOL INITIAL CALIBRATION SUMMARY

Date Analyzed: 09/25/2013      Instrument ID: GC-Y  
 GC Column (1st): DB-5

Data File: Y1850.D Y1849.D Y1848.D Y1847.D Y1846.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			8.55				8.43	8.67
Aroclor-1262 {2}			9.41				9.29	9.53
Aroclor-1262 {3}			10.04				9.92	10.16
Aroclor-1262 {4}			10.13				10.01	10.25
Aroclor-1262 {5}			10.95				10.83	11.07
Aroclor-1268			10.04				9.92	10.16
Aroclor-1268 {2}			10.12				10.00	10.24
Aroclor-1268 {3}			10.59				10.47	10.71
Aroclor-1268 {4}			11.55				11.43	11.67
Aroclor-1268 {5}			12.04				11.92	12.16

GC Column (2nd): DB-1701P

Data File: Y1850.C Y1849.C Y1848.C Y1847.C Y1846.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			9.70				9.58	9.82
Aroclor-1262 {2}			10.20				10.08	10.32
Aroclor-1262 {3}			10.70				10.58	10.82
Aroclor-1262 {4}			10.79				10.67	10.91
Aroclor-1262 {5}			11.39				11.27	11.51
Aroclor-1268			10.70				10.58	10.82
Aroclor-1268 {2}			10.78				10.66	10.90
Aroclor-1268 {3}			11.04				10.92	11.16
Aroclor-1268 {4}			12.25				12.13	12.37
Aroclor-1268 {5}			12.48				12.36	12.60

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed:

09/25/2013

Instrument ID:

GC-Y

GC Column (1st):

DB-5

Data File:

Y1850.D    Y1849.D    Y1848.D    Y1847.D    Y1846.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			1292916				
Aroclor-1262 {2}			2408782				
Aroclor-1262 {3}			950819				
Aroclor-1262 {4}			1039798				
Aroclor-1262 {5}			871465				
Aroclor-1268			2329028				
Aroclor-1268 {2}			2439244				
Aroclor-1268 {3}			1975765				
Aroclor-1268 {4}			5596247				
Aroclor-1268 {5}			3165388				

GC Column (2nd): DB-1701P

Data File:

Y1850.C    Y1849.C    Y1848.C    Y1847.C    Y1846.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			2532606				
Aroclor-1262 {2}			5716193				
Aroclor-1262 {3}			2058727				
Aroclor-1262 {4}			4020600				
Aroclor-1262 {5}			980018				
Aroclor-1268			5861773				
Aroclor-1268 {2}			6124826				
Aroclor-1268 {3}			5049165				
Aroclor-1268 {4}			14509441				
Aroclor-1268 {5}			8286384				

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/22/2013

Instrument ID: GC-Y

Data File: Y2408.D

GC Column (1st): DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.23	3.16	3.30	394332	326823	17.12
Aroclor-1016 {2}	4.05	3.98	4.12	546451	447291	18.15
Aroclor-1016 {3}	4.60	4.53	4.67	687780	560616	18.49
Aroclor-1016 {4}	5.10	5.03	5.17	331025	292250	11.71
Aroclor-1016 {5}	5.50	5.42	5.56	562872	463278	17.69
Aroclor-1260	8.27	7.36	9.16	1606726	1321724	17.74
Aroclor-1260 {2}	8.94	8.04	9.84	759119	616407	18.80
Aroclor-1260 {3}	9.41	8.51	10.31	1826305	1544968	15.40
Aroclor-1260 {4}	9.89	8.99	10.79	952284	838008	12.00
Aroclor-1260 {5}	10.95	10.05	11.85	412992	431179	4.40

Data File: Y2408.C

GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.76	3.69	3.83	731183	668693	8.55
Aroclor-1016 {2}	4.36	4.29	4.43	1586125	1509293	4.84
Aroclor-1016 {3}	5.11	5.04	5.18	3717574	3393540	8.72
Aroclor-1016 {4}	5.32	5.25	5.39	1636714	1462308	10.66
Aroclor-1016 {5}	5.49	5.42	5.56	1271295	1157754	8.93
Aroclor-1260	7.85	6.95	8.75	1372418	1242036	9.50
Aroclor-1260 {2}	8.11	7.21	9.01	1997230	1806791	9.54
Aroclor-1260 {3}	9.70	8.80	10.60	1723918	1703542	1.18
Aroclor-1260 {4}	10.20	9.30	11.10	3804274	3864696	1.59
Aroclor-1260 {5}	10.79	9.89	11.69	2719408	2757074	1.39

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/23/2013

Instrument ID: GC-Y

Data File: Y2416.D

GC Column (1st):

DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.23	3.16	3.30	394332	330763	16.12
Aroclor-1016 {2}	4.05	3.98	4.12	546451	453191	17.07
Aroclor-1016 {3}	4.60	4.53	4.67	687780	568120	17.40
Aroclor-1016 {4}	5.10	5.03	5.17	331025	296002	10.58
Aroclor-1016 {5}	5.50	5.42	5.56	562872	474340	15.73
Aroclor-1260	8.27	7.36	9.16	1606726	1373088	14.54
Aroclor-1260 {2}	8.94	8.04	9.84	759119	642532	15.36
Aroclor-1260 {3}	9.41	8.51	10.31	1826305	1615958	11.52
Aroclor-1260 {4}	9.89	8.99	10.79	952284	860268	9.66
Aroclor-1260 {5}	10.95	10.05	11.85	412992	396898	3.90

Data File: Y2416.C

GC Column (2nd):

DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.76	3.69	3.83	731183	685886	6.20
Aroclor-1016 {2}	4.36	4.29	4.43	1586125	1332722	15.98
Aroclor-1016 {3}	5.11	5.04	5.18	3717574	3491473	6.08
Aroclor-1016 {4}	5.32	5.25	5.39	1636714	1508222	7.85
Aroclor-1016 {5}	5.49	5.42	5.56	1271295	1193600	6.11
Aroclor-1260	7.85	6.95	8.75	1372418	1279692	6.76
Aroclor-1260 {2}	8.10	7.21	9.01	1997230	1882484	5.75
Aroclor-1260 {3}	9.70	8.80	10.60	1723918	1810727	5.04
Aroclor-1260 {4}	10.20	9.30	11.10	3804274	4151895	9.14
Aroclor-1260 {5}	10.79	9.89	11.69	2719408	3028988	11.38

## AROCLOR INITIAL CALIBRATION SUMMARY

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.20	3.20	3.20	3.20	3.20	3.20	3.13	3.27
Aroclor-1016 {2}	4.03	4.03	4.03	4.03	4.03	4.03	3.96	4.10
Aroclor-1016 {3}	4.59	4.58	4.58	4.58	4.58	4.58	4.51	4.65
Aroclor-1016 {4}	5.09	5.09	5.09	5.09	5.09	5.09	5.02	5.16
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.11				2.04	2.18
Aroclor-1221 {2}			3.00				2.93	3.07
Aroclor-1221 {3}			3.13				3.06	3.20
Aroclor-1221 {4}			3.20				3.13	3.27
Aroclor-1221 {5}			3.80				3.73	3.87
Aroclor-1232			3.20				3.13	3.27
Aroclor-1232 {2}			4.03				3.96	4.10
Aroclor-1232 {3}			4.70				4.63	4.77
Aroclor-1232 {4}			5.29				5.22	5.36
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.03				3.96	4.10
Aroclor-1242 {2}			4.97				4.90	5.04
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			6.00				5.93	6.07
Aroclor-1242 {5}			6.27				6.20	6.34
Aroclor-1248			4.43				4.35	4.51
Aroclor-1248 {2}			4.97				4.89	5.05
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			6.00				5.92	6.08
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.83				6.75	6.91
Aroclor-1254 {3}			7.00				6.91	7.09
Aroclor-1254 {4}			7.45				7.36	7.54
Aroclor-1254 {5}			8.30				8.21	8.39
Aroclor-1260	8.30	8.30	8.29	8.29	8.29	8.29	7.39	9.19
Aroclor-1260 {2}	8.97	8.97	8.97	8.97	8.96	8.97	8.07	9.87
Aroclor-1260 {3}	9.46	9.46	9.45	9.45	9.45	9.45	8.55	10.35
Aroclor-1260 {4}	9.95	9.95	9.94	9.94	9.94	9.94	9.04	10.84
Aroclor-1260 {5}	11.02	11.01	11.01	11.01	11.00	11.01	10.11	11.91

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed:

10/18/2013

Instrument ID:

GC-R

GC Column (1st):

DB-5

Data File:

R4820.D    R4819.D    R4818.D    R4817.D    R4816.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	231867	242237	228592	193642	202501	219768	9.41
Aroclor-1016 {2}	323952	328763	312155	266416	283182	302894	8.92
Aroclor-1016 {3}	408864	422707	403550	343925	364951	388800	8.48
Aroclor-1016 {4}	211380	209414	197757	165186	173203	191388	11.03
Aroclor-1016 {5}	318536	325749	322343	275171	293750	307110	7.11
Aroclor-1221			112607				
Aroclor-1221 {2}			180363				
Aroclor-1221 {3}			116612				
Aroclor-1221 {4}			410785				
Aroclor-1221 {5}			87454				
Aroclor-1232			299005				
Aroclor-1232 {2}			173615				
Aroclor-1232 {3}			148470				
Aroclor-1232 {4}			166967				
Aroclor-1232 {5}			214764				
Aroclor-1242			270307				
Aroclor-1242 {2}			167968				
Aroclor-1242 {3}			238157				
Aroclor-1242 {4}			373164				
Aroclor-1242 {5}			318472				
Aroclor-1248			652071				
Aroclor-1248 {2}			375416				
Aroclor-1248 {3}			492167				
Aroclor-1248 {4}			820080				
Aroclor-1248 {5}			559162				
Aroclor-1254			754913				
Aroclor-1254 {2}			471653				
Aroclor-1254 {3}			896264				
Aroclor-1254 {4}			908483				
Aroclor-1254 {5}			831676				
Aroclor-1260	775960	857104	906294	793572	814009	829388	6.34
Aroclor-1260 {2}	377553	403178	424628	369076	376790	390245	5.93
Aroclor-1260 {3}	928859	1035434	1093936	957941	955048	994243	6.89
Aroclor-1260 {4}	468061	491573	539142	480892	479108	491755	5.65
Aroclor-1260 {5}	276730	239351	257112	224560	216162	242783	10.11
<b>Average %RSD</b>						<b>7.99</b>	

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.37	3.37	3.37	3.37	3.37	3.37	3.30	3.44
Aroclor-1016 {2}	3.93	3.93	3.93	3.93	3.93	3.93	3.86	4.00
Aroclor-1016 {3}	4.65	4.65	4.65	4.65	4.65	4.65	4.58	4.72
Aroclor-1016 {4}	4.85	4.85	4.85	4.85	4.85	4.85	4.78	4.92
Aroclor-1016 {5}	5.01	5.01	5.02	5.02	5.02	5.02	4.95	5.09
Aroclor-1221			2.16				2.09	2.23
Aroclor-1221 {2}			3.07				3.00	3.14
Aroclor-1221 {3}			3.28				3.21	3.35
Aroclor-1221 {4}			3.37				3.30	3.44
Aroclor-1221 {5}			4.65				4.58	4.72
Aroclor-1232			3.37				3.30	3.44
Aroclor-1232 {2}			4.29				4.22	4.36
Aroclor-1232 {3}			4.85				4.78	4.92
Aroclor-1232 {4}			5.02				4.95	5.09
Aroclor-1232 {5}			5.60				5.53	5.67
Aroclor-1242			4.29				4.22	4.36
Aroclor-1242 {2}			5.02				4.95	5.09
Aroclor-1242 {3}			5.60				5.53	5.67
Aroclor-1242 {4}			5.75				5.68	5.82
Aroclor-1242 {5}			6.29				6.22	6.36
Aroclor-1248			4.65				4.57	4.73
Aroclor-1248 {2}			5.21				5.13	5.29
Aroclor-1248 {3}			5.60				5.52	5.68
Aroclor-1248 {4}			5.75				5.67	5.83
Aroclor-1248 {5}			6.09				6.01	6.17
Aroclor-1254			6.58				6.50	6.66
Aroclor-1254 {2}			7.16				7.08	7.24
Aroclor-1254 {3}			7.59				7.50	7.68
Aroclor-1254 {4}			7.78				7.69	7.87
Aroclor-1254 {5}			8.58				8.49	8.67
Aroclor-1260	7.34	7.34	7.34	7.34	7.34	7.34	6.44	8.24
Aroclor-1260 {2}	7.59	7.59	7.59	7.59	7.59	7.59	6.69	8.49
Aroclor-1260 {3}	9.17	9.17	9.17	9.17	9.17	9.17	8.27	10.07
Aroclor-1260 {4}	9.69	9.69	9.69	9.68	9.68	9.69	8.79	10.59
Aroclor-1260 {5}	10.28	10.28	10.27	10.27	10.27	10.27	9.37	11.17

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	550494	519905	477104	398620	415593	472343	13.82
Aroclor-1016 {2}	1137773	1114790	971547	817071	857941	979824	14.84
Aroclor-1016 {3}	2409237	2308318	2162673	1836901	1930647	2129555	11.42
Aroclor-1016 {4}	976378	938082	902861	752678	797813	873562	10.85
Aroclor-1016 {5}	765897	723148	693529	580374	604962	673582	11.68
Aroclor-1221			232590				
Aroclor-1221 {2}			371702				
Aroclor-1221 {3}			228573				
Aroclor-1221 {4}			851260				
Aroclor-1221 {5}			156189				
Aroclor-1232			626422				
Aroclor-1232 {2}			237558				
Aroclor-1232 {3}			506906				
Aroclor-1232 {4}			387345				
Aroclor-1232 {5}			545113				
Aroclor-1242			361591				
Aroclor-1242 {2}			595144				
Aroclor-1242 {3}			790982				
Aroclor-1242 {4}			656779				
Aroclor-1242 {5}			1253965				
Aroclor-1248			1407656				
Aroclor-1248 {2}			2125325				
Aroclor-1248 {3}			1515589				
Aroclor-1248 {4}			1365446				
Aroclor-1248 {5}			734322				
Aroclor-1254			1659417				
Aroclor-1254 {2}			1314077				
Aroclor-1254 {3}			861013				
Aroclor-1254 {4}			1218067				
Aroclor-1254 {5}			1822415				
Aroclor-1260	922431	1045578	934621	786115	713116	880372	14.90
Aroclor-1260 {2}	1394880	1337506	1235464	1030567	1057679	1211219	13.47
Aroclor-1260 {3}	1134860	1095803	1056150	902187	916628	1021126	10.36
Aroclor-1260 {4}	2472691	2519783	2419894	2060860	2010835	2296813	10.51
Aroclor-1260 {5}	1675873	1830814	1743697	1489536	1439740	1635932	10.19

Average %RSD

12.21

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			8.66				8.54	8.78
Aroclor-1262 {2}			9.45				9.33	9.57
Aroclor-1262 {3}			10.08				9.96	10.20
Aroclor-1262 {4}			10.17				10.05	10.29
Aroclor-1262 {5}			11.01				10.89	11.13
Aroclor-1268			10.08				9.96	10.20
Aroclor-1268 {2}			10.17				10.05	10.29
Aroclor-1268 {3}			10.63				10.51	10.75
Aroclor-1268 {4}			10.76				10.64	10.88
Aroclor-1268 {5}			11.61				11.49	11.73

GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			9.17				9.05	9.29
Aroclor-1262 {2}			9.68				9.56	9.80
Aroclor-1262 {3}			10.17				10.05	10.29
Aroclor-1262 {4}			10.26				10.14	10.38
Aroclor-1262 {5}			10.86				10.74	10.98
Aroclor-1268			10.17				10.05	10.29
Aroclor-1268 {2}			10.25				10.13	10.37
Aroclor-1268 {3}			10.50				10.38	10.62
Aroclor-1268 {4}			10.64				10.52	10.76
Aroclor-1268 {5}			11.72				11.60	11.84

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			420599				
Aroclor-1262 {2}			1542205				
Aroclor-1262 {3}			582031				
Aroclor-1262 {4}			721905				
Aroclor-1262 {5}			531740				
Aroclor-1268			1681176				
Aroclor-1268 {2}			1910902				
Aroclor-1268 {3}			1476250				
Aroclor-1268 {4}			401069				
Aroclor-1268 {5}			4856406				

GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			1508129				
Aroclor-1262 {2}			3468452				
Aroclor-1262 {3}			1097700				
Aroclor-1262 {4}			2448536				
Aroclor-1262 {5}			430436				
Aroclor-1268			3602626				
Aroclor-1268 {2}			4026803				
Aroclor-1268 {3}			3133762				
Aroclor-1268 {4}			846659				
Aroclor-1268 {5}			9930684				

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/23/2013

Instrument ID: GC-R

Data File: R4952.D

GC Column (1st): DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.21	3.13	3.27	219768	234870	6.87
Aroclor-1016 {2}	4.04	3.96	4.10	302894	317714	4.89
Aroclor-1016 {3}	4.60	4.51	4.65	388800	415138	6.77
Aroclor-1016 {4}	5.10	5.02	5.16	191388	217713	13.75
Aroclor-1016 {5}	5.50	5.42	5.56	307110	328614	7.00
Aroclor-1260	8.30	7.39	9.19	829388	942512	13.64
Aroclor-1260 {2}	8.97	8.07	9.87	390245	424378	8.75
Aroclor-1260 {3}	9.46	8.55	10.35	994243	1098787	10.51
Aroclor-1260 {4}	9.94	9.04	10.84	491755	534493	8.69
Aroclor-1260 {5}	11.01	10.11	11.91	242783	246814	1.66

Data File: R4952.C

GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	426018	9.81
Aroclor-1016 {2}	3.93	3.86	4.00	979824	834461	14.84
Aroclor-1016 {3}	4.66	4.58	4.72	2129555	1896322	10.95
Aroclor-1016 {4}	4.86	4.78	4.92	873562	794893	9.01
Aroclor-1016 {5}	5.02	4.95	5.09	673582	611605	9.20
Aroclor-1260	7.34	6.44	8.24	880372	809055	8.10
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1075506	11.20
Aroclor-1260 {3}	9.18	8.27	10.07	1021126	899200	11.94
Aroclor-1260 {4}	9.69	8.79	10.59	2296813	1994027	13.18
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1393705	14.81

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/23/2013

Instrument ID: GC-R

Data File: R4961.D

GC Column (1st): DB-5

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.21	3.13	3.27	219768	222292	1.15
Aroclor-1016 {2}	4.04	3.96	4.10	302894	299104	1.25
Aroclor-1016 {3}	4.60	4.51	4.65	388800	394090	1.36
Aroclor-1016 {4}	5.10	5.02	5.16	191388	209023	9.21
Aroclor-1016 {5}	5.50	5.42	5.56	307110	314149	2.29
Aroclor-1260	8.30	7.39	9.19	829388	897538	8.22
Aroclor-1260 {2}	8.98	8.07	9.87	390245	408475	4.67
Aroclor-1260 {3}	9.46	8.55	10.35	994243	1043300	4.93
Aroclor-1260 {4}	9.95	9.04	10.84	491755	510307	3.77
Aroclor-1260 {5}	11.01	10.11	11.91	242783	216151	10.97

Data File: R4961.C

GC Column (2nd): DB-1701P

Compound	RT	RT WI NDOW FROM	TO	Avg CF	CC CF	%D
Aroclor-1016	3.37	3.30	3.44	472343	408532	13.51
Aroclor-1016 {2}	3.93	3.86	4.00	979824	795223	18.84
Aroclor-1016 {3}	4.66	4.58	4.72	2129555	1799832	15.48
Aroclor-1016 {4}	4.86	4.78	4.92	873562	762615	12.70
Aroclor-1016 {5}	5.02	4.95	5.09	673582	585378	13.09
Aroclor-1260	7.34	6.44	8.24	880372	774572	12.02
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1040811	14.07
Aroclor-1260 {3}	9.18	8.27	10.07	1021126	869395	14.86
Aroclor-1260 {4}	9.69	8.79	10.59	2296813	1929801	15.98
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1365913	16.51

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013

Instrument ID: GC-R  
GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.20	3.20	3.20	3.20	3.20	3.20	3.13	3.27
Aroclor-1016 {2}	4.03	4.03	4.03	4.03	4.03	4.03	3.96	4.10
Aroclor-1016 {3}	4.59	4.58	4.58	4.58	4.58	4.58	4.51	4.65
Aroclor-1016 {4}	5.09	5.09	5.09	5.09	5.09	5.09	5.02	5.16
Aroclor-1016 {5}	5.49	5.49	5.49	5.49	5.49	5.49	5.42	5.56
Aroclor-1221			2.11				2.04	2.18
Aroclor-1221 {2}			3.00				2.93	3.07
Aroclor-1221 {3}			3.13				3.06	3.20
Aroclor-1221 {4}			3.20				3.13	3.27
Aroclor-1221 {5}			3.80				3.73	3.87
Aroclor-1232			3.20				3.13	3.27
Aroclor-1232 {2}			4.03				3.96	4.10
Aroclor-1232 {3}			4.70				4.63	4.77
Aroclor-1232 {4}			5.29				5.22	5.36
Aroclor-1232 {5}			5.49				5.42	5.56
Aroclor-1242			4.03				3.96	4.10
Aroclor-1242 {2}			4.97				4.90	5.04
Aroclor-1242 {3}			5.30				5.23	5.37
Aroclor-1242 {4}			6.00				5.93	6.07
Aroclor-1242 {5}			6.27				6.20	6.34
Aroclor-1248			4.43				4.35	4.51
Aroclor-1248 {2}			4.97				4.89	5.05
Aroclor-1248 {3}			5.30				5.22	5.38
Aroclor-1248 {4}			6.00				5.92	6.08
Aroclor-1248 {5}			6.27				6.19	6.35
Aroclor-1254			6.39				6.31	6.47
Aroclor-1254 {2}			6.83				6.75	6.91
Aroclor-1254 {3}			7.00				6.91	7.09
Aroclor-1254 {4}			7.45				7.36	7.54
Aroclor-1254 {5}			8.30				8.21	8.39
Aroclor-1260	8.30	8.30	8.29	8.29	8.29	8.29	7.39	9.19
Aroclor-1260 {2}	8.97	8.97	8.97	8.97	8.96	8.97	8.07	9.87
Aroclor-1260 {3}	9.46	9.46	9.45	9.45	9.45	9.45	8.55	10.35
Aroclor-1260 {4}	9.95	9.95	9.94	9.94	9.94	9.94	9.04	10.84
Aroclor-1260 {5}	11.02	11.01	11.01	11.01	11.00	11.01	10.11	11.91

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
 GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	231867	242237	228592	193642	202501	219768	9.41
Aroclor-1016 {2}	323952	328763	312155	266416	283182	302894	8.92
Aroclor-1016 {3}	408864	422707	403550	343925	364951	388800	8.48
Aroclor-1016 {4}	211380	209414	197757	165186	173203	191388	11.03
Aroclor-1016 {5}	318536	325749	322343	275171	293750	307110	7.11
Aroclor-1221			112607				
Aroclor-1221 {2}			180363				
Aroclor-1221 {3}			116612				
Aroclor-1221 {4}			410785				
Aroclor-1221 {5}			87454				
Aroclor-1232			299005				
Aroclor-1232 {2}			173615				
Aroclor-1232 {3}			148470				
Aroclor-1232 {4}			166967				
Aroclor-1232 {5}			214764				
Aroclor-1242			270307				
Aroclor-1242 {2}			167968				
Aroclor-1242 {3}			238157				
Aroclor-1242 {4}			373164				
Aroclor-1242 {5}			318472				
Aroclor-1248			652071				
Aroclor-1248 {2}			375416				
Aroclor-1248 {3}			492167				
Aroclor-1248 {4}			820080				
Aroclor-1248 {5}			559162				
Aroclor-1254			754913				
Aroclor-1254 {2}			471653				
Aroclor-1254 {3}			896264				
Aroclor-1254 {4}			908483				
Aroclor-1254 {5}			831676				
Aroclor-1260	775960	857104	906294	793572	814009	829388	6.34
Aroclor-1260 {2}	377553	403178	424628	369076	376790	390245	5.93
Aroclor-1260 {3}	928859	1035434	1093936	957941	955048	994243	6.89
Aroclor-1260 {4}	468061	491573	539142	480892	479108	491755	5.65
Aroclor-1260 {5}	276730	239351	257112	224560	216162	242783	10.11
Average %RSD						7.99	

## AROCLOL INITIAL CALIBRATION SUMMARY

**Date Analyzed:** 10/18/2013

**Instrument ID:** GC-R  
**GC Column (2nd):** DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1016	3.37	3.37	3.37	3.37	3.37	3.37	3.30	3.44
Aroclor-1016 {2}	3.93	3.93	3.93	3.93	3.93	3.93	3.86	4.00
Aroclor-1016 {3}	4.65	4.65	4.65	4.65	4.65	4.65	4.58	4.72
Aroclor-1016 {4}	4.85	4.85	4.85	4.85	4.85	4.85	4.78	4.92
Aroclor-1016 {5}	5.01	5.01	5.02	5.02	5.02	5.02	4.95	5.09
Aroclor-1221			2.16				2.09	2.23
Aroclor-1221 {2}			3.07				3.00	3.14
Aroclor-1221 {3}			3.28				3.21	3.35
Aroclor-1221 {4}			3.37				3.30	3.44
Aroclor-1221 {5}			4.65				4.58	4.72
Aroclor-1232			3.37				3.30	3.44
Aroclor-1232 {2}			4.29				4.22	4.36
Aroclor-1232 {3}			4.85				4.78	4.92
Aroclor-1232 {4}			5.02				4.95	5.09
Aroclor-1232 {5}			5.60				5.53	5.67
Aroclor-1242			4.29				4.22	4.36
Aroclor-1242 {2}			5.02				4.95	5.09
Aroclor-1242 {3}			5.60				5.53	5.67
Aroclor-1242 {4}			5.75				5.68	5.82
Aroclor-1242 {5}			6.29				6.22	6.36
Aroclor-1248			4.65				4.57	4.73
Aroclor-1248 {2}			5.21				5.13	5.29
Aroclor-1248 {3}			5.60				5.52	5.68
Aroclor-1248 {4}			5.75				5.67	5.83
Aroclor-1248 {5}			6.09				6.01	6.17
Aroclor-1254			6.58				6.50	6.66
Aroclor-1254 {2}			7.16				7.08	7.24
Aroclor-1254 {3}			7.59				7.50	7.68
Aroclor-1254 {4}			7.78				7.69	7.87
Aroclor-1254 {5}			8.58				8.49	8.67
Aroclor-1260	7.34	7.34	7.34	7.34	7.34	7.34	6.44	8.24
Aroclor-1260 {2}	7.59	7.59	7.59	7.59	7.59	7.59	6.69	8.49
Aroclor-1260 {3}	9.17	9.17	9.17	9.17	9.17	9.17	8.27	10.07
Aroclor-1260 {4}	9.69	9.69	9.69	9.68	9.68	9.69	8.79	10.59
Aroclor-1260 {5}	10.28	10.28	10.27	10.27	10.27	10.27	9.37	11.17

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed:

10/18/2013

Instrument ID:

GC-R

GC Column (2nd):

DB-1701P

Data File:

R4820.C    R4819.C    R4818.C    R4817.C    R4816.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1016	550494	519905	477104	398620	415593	472343	13.82
Aroclor-1016 {2}	1137773	1114790	971547	817071	857941	979824	14.84
Aroclor-1016 {3}	2409237	2308318	2162673	1836901	1930647	2129555	11.42
Aroclor-1016 {4}	976378	938082	902861	752678	797813	873562	10.85
Aroclor-1016 {5}	765897	723148	693529	580374	604962	673582	11.68
Aroclor-1221			232590				
Aroclor-1221 {2}			371702				
Aroclor-1221 {3}			228573				
Aroclor-1221 {4}			851260				
Aroclor-1221 {5}			156189				
Aroclor-1232			626422				
Aroclor-1232 {2}			237558				
Aroclor-1232 {3}			506906				
Aroclor-1232 {4}			387345				
Aroclor-1232 {5}			545113				
Aroclor-1242			361591				
Aroclor-1242 {2}			595144				
Aroclor-1242 {3}			790982				
Aroclor-1242 {4}			656779				
Aroclor-1242 {5}			1253965				
Aroclor-1248			1407656				
Aroclor-1248 {2}			2125325				
Aroclor-1248 {3}			1515589				
Aroclor-1248 {4}			1365446				
Aroclor-1248 {5}			734322				
Aroclor-1254			1659417				
Aroclor-1254 {2}			1314077				
Aroclor-1254 {3}			861013				
Aroclor-1254 {4}			1218067				
Aroclor-1254 {5}			1822415				
Aroclor-1260	922431	1045578	934621	786115	713116	880372	14.90
Aroclor-1260 {2}	1394880	1337506	1235464	1030567	1057679	1211219	13.47
Aroclor-1260 {3}	1134860	1095803	1056150	902187	916628	1021126	10.36
Aroclor-1260 {4}	2472691	2519783	2419894	2060860	2010835	2296813	10.51
Aroclor-1260 {5}	1675873	1830814	1743697	1489536	1439740	1635932	10.19
<b>Average %RSD</b>						12.21	

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed: 10/18/2013      Instrument ID: GC-R  
     GC Column (1st): DB-5

Data File: R4820.D R4819.D R4818.D R4817.D R4816.D

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			8.66				8.54	8.78
Aroclor-1262 {2}			9.45				9.33	9.57
Aroclor-1262 {3}			10.08				9.96	10.20
Aroclor-1262 {4}			10.17				10.05	10.29
Aroclor-1262 {5}			11.01				10.89	11.13
Aroclor-1268			10.08				9.96	10.20
Aroclor-1268 {2}			10.17				10.05	10.29
Aroclor-1268 {3}			10.63				10.51	10.75
Aroclor-1268 {4}			10.76				10.64	10.88
Aroclor-1268 {5}			11.61				11.49	11.73

GC Column (2nd): DB-1701P

Data File: R4820.C R4819.C R4818.C R4817.C R4816.C

Compound	RT OF STANDARDS					MEAN RT	RT WINDOW	
	10	50	500	1000	2000		FROM	TO
Aroclor-1262			9.17				9.05	9.29
Aroclor-1262 {2}			9.68				9.56	9.80
Aroclor-1262 {3}			10.17				10.05	10.29
Aroclor-1262 {4}			10.26				10.14	10.38
Aroclor-1262 {5}			10.86				10.74	10.98
Aroclor-1268			10.17				10.05	10.29
Aroclor-1268 {2}			10.25				10.13	10.37
Aroclor-1268 {3}			10.50				10.38	10.62
Aroclor-1268 {4}			10.64				10.52	10.76
Aroclor-1268 {5}			11.72				11.60	11.84

# AROCLOR INITIAL CALIBRATION SUMMARY

Date Analyzed:

10/18/2013

Instrument ID:

GC-R

GC Column (1st):

DB-5

Data File:

R4820.D    R4819.D    R4818.D    R4817.D    R4816.D

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			420599				
Aroclor-1262 {2}			1542205				
Aroclor-1262 {3}			582031				
Aroclor-1262 {4}			721905				
Aroclor-1262 {5}			531740				
Aroclor-1268			1681176				
Aroclor-1268 {2}			1910902				
Aroclor-1268 {3}			1476250				
Aroclor-1268 {4}			401069				
Aroclor-1268 {5}			4856406				

GC Column (2nd): DB-1701P

Data File:

R4820.C    R4819.C    R4818.C    R4817.C    R4816.C

Compound	CALIBRATION FACTORS					MEAN	%RSD
	10	50	500	1000	2000		
Aroclor-1262			1508129				
Aroclor-1262 {2}			3468452				
Aroclor-1262 {3}			1097700				
Aroclor-1262 {4}			2448536				
Aroclor-1262 {5}			430436				
Aroclor-1268			3602626				
Aroclor-1268 {2}			4026803				
Aroclor-1268 {3}			3133762				
Aroclor-1268 {4}			846659				
Aroclor-1268 {5}			9930684				

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/22/2013      Instrument ID: GC-R

Data File: R4921.D      GC Column (1st): DB-5

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.21	3.13	3.27	219768	231264	5.23
Aroclor-1016 {2}	4.04	3.96	4.10	302894	312092	3.04
Aroclor-1016 {3}	4.59	4.51	4.65	388800	411005	5.71
Aroclor-1016 {4}	5.10	5.02	5.16	191388	214632	12.14
Aroclor-1016 {5}	5.50	5.42	5.56	307110	323855	5.45
Aroclor-1260	8.30	7.39	9.19	829388	893874	7.78
Aroclor-1260 {2}	8.97	8.07	9.87	390245	406225	4.09
Aroclor-1260 {3}	9.45	8.55	10.35	994243	1018236	2.41
Aroclor-1260 {4}	9.94	9.04	10.84	491755	501290	1.94
Aroclor-1260 {5}	11.00	10.11	11.91	242783	214084	11.82

Data File: R4921.C      GC Column (2nd): DB-1701P

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	446402	5.49
Aroclor-1016 {2}	3.93	3.86	4.00	979824	877613	10.43
Aroclor-1016 {3}	4.65	4.58	4.72	2129555	1979639	7.04
Aroclor-1016 {4}	4.85	4.78	4.92	873562	823715	5.71
Aroclor-1016 {5}	5.02	4.95	5.09	673582	633956	5.88
Aroclor-1260	7.34	6.44	8.24	880372	804001	8.67
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1058273	12.63
Aroclor-1260 {3}	9.17	8.27	10.07	1021126	876325	14.18
Aroclor-1260 {4}	9.68	8.79	10.59	2296813	1896650	17.42
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1330770	18.65

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/22/2013      Instrument ID: GC-R

Data File: R4927.D      GC Column (1st): DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.21	3.13	3.27	219768	231037	5.13
Aroclor-1016 {2}	4.04	3.96	4.10	302894	311318	2.78
Aroclor-1016 {3}	4.59	4.51	4.65	388800	410016	5.46
Aroclor-1016 {4}	5.10	5.02	5.16	191388	213992	11.81
Aroclor-1016 {5}	5.50	5.42	5.56	307110	324563	5.68
Aroclor-1260	8.30	7.39	9.19	829388	912048	9.97
Aroclor-1260 {2}	8.97	8.07	9.87	390245	407006	4.30
Aroclor-1260 {3}	9.46	8.55	10.35	994243	1047293	5.34
Aroclor-1260 {4}	9.94	9.04	10.84	491755	520300	5.80
Aroclor-1260 {5}	11.00	10.11	11.91	242783	257045	5.87

Data File: R4927.C      GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	439971	6.85
Aroclor-1016 {2}	3.93	3.86	4.00	979824	861176	12.11
Aroclor-1016 {3}	4.65	4.58	4.72	2129555	1961822	7.88
Aroclor-1016 {4}	4.85	4.78	4.92	873562	809018	7.39
Aroclor-1016 {5}	5.02	4.95	5.09	673582	621831	7.68
Aroclor-1260	7.34	6.44	8.24	880372	816097	7.30
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1069014	11.74
Aroclor-1260 {3}	9.17	8.27	10.07	1021126	875714	14.24
Aroclor-1260 {4}	9.68	8.79	10.59	2296813	1937472	15.65
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1346361	17.70

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/23/2013

Instrument ID:

GC-R

Data File: R4947.D

GC Column (1st):

DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.21	3.13	3.27	219768	234267	6.60
Aroclor-1016 {2}	4.04	3.96	4.10	302894	314348	3.78
Aroclor-1016 {3}	4.59	4.51	4.65	388800	414004	6.48
Aroclor-1016 {4}	5.10	5.02	5.16	191388	218156	13.99
Aroclor-1016 {5}	5.50	5.42	5.56	307110	328547	6.98
Aroclor-1260	8.30	7.39	9.19	829388	942046	13.58
Aroclor-1260 {2}	8.97	8.07	9.87	390245	421393	7.98
Aroclor-1260 {3}	9.46	8.55	10.35	994243	1092993	9.93
Aroclor-1260 {4}	9.94	9.04	10.84	491755	539327	9.67
Aroclor-1260 {5}	11.00	10.11	11.91	242783	269861	11.15

Data File: R4947.C

GC Column (2nd):

DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	433294	8.27
Aroclor-1016 {2}	3.93	3.86	4.00	979824	844836	13.78
Aroclor-1016 {3}	4.65	4.58	4.72	2129555	1921488	9.77
Aroclor-1016 {4}	4.85	4.78	4.92	873562	801417	8.26
Aroclor-1016 {5}	5.02	4.95	5.09	673582	614809	8.73
Aroclor-1260	7.34	6.44	8.24	880372	814410	7.49
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1077311	11.06
Aroclor-1260 {3}	9.17	8.27	10.07	1021126	896440	12.21
Aroclor-1260 {4}	9.68	8.79	10.59	2296813	2001328	12.86
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1402137	14.29

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/23/2013      Instrument ID: GC-R

Data File: R4948.D      GC Column (1st): DB-5

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.21	3.13	3.27	219768	235779	7.29
Aroclor-1016 {2}	4.04	3.96	4.10	302894	321501	6.14
Aroclor-1016 {3}	4.59	4.51	4.65	388800	419102	7.79
Aroclor-1016 {4}	5.10	5.02	5.16	191388	223868	16.97
Aroclor-1016 {5}	5.50	5.42	5.56	307110	332182	8.16
Aroclor-1260	8.30	7.39	9.19	829388	956520	15.33
Aroclor-1260 {2}	8.97	8.07	9.87	390245	434308	11.29
Aroclor-1260 {3}	9.45	8.55	10.35	994243	1093541	9.99
Aroclor-1260 {4}	9.94	9.04	10.84	491755	536864	9.17
Aroclor-1260 {5}	11.00	10.11	11.91	242783	244613	0.75

Data File: R4948.C      GC Column (2nd): DB-1701P

Compound	RT	RT WINDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.38	3.30	3.44	472343	448401	5.07
Aroclor-1016 {2}	3.95	3.86	4.00	979824	869934	11.22
Aroclor-1016 {3}	4.67	4.58	4.72	2129555	1984591	6.81
Aroclor-1016 {4}	4.87	4.78	4.92	873562	826981	5.33
Aroclor-1016 {5}	5.04	4.95	5.09	673582	638120	5.26
Aroclor-1260	7.36	6.44	8.24	880372	845836	3.92
Aroclor-1260 {2}	7.61	6.69	8.49	1211219	1112668	8.14
Aroclor-1260 {3}	9.18	8.27	10.07	1021126	939811	7.96
Aroclor-1260 {4}	9.69	8.79	10.59	2296813	2026254	11.78
Aroclor-1260 {5}	10.28	9.37	11.17	1635932	1421410	13.11

# AROCLOR CALIBRATION VERIFICATION SUMMARY

Date/Time Analyzed: 10/23/2013      Instrument ID: GC-R

Data File: R4952.D      GC Column (1st): DB-5

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.21	3.13	3.27	219768	234870	6.87
Aroclor-1016 {2}	4.04	3.96	4.10	302894	317714	4.89
Aroclor-1016 {3}	4.60	4.51	4.65	388800	415138	6.77
Aroclor-1016 {4}	5.10	5.02	5.16	191388	217713	13.75
Aroclor-1016 {5}	5.50	5.42	5.56	307110	328614	7.00
Aroclor-1260	8.30	7.39	9.19	829388	942512	13.64
Aroclor-1260 {2}	8.97	8.07	9.87	390245	424378	8.75
Aroclor-1260 {3}	9.46	8.55	10.35	994243	1098787	10.51
Aroclor-1260 {4}	9.94	9.04	10.84	491755	534493	8.69
Aroclor-1260 {5}	11.01	10.11	11.91	242783	246814	1.66

Data File: R4952.C      GC Column (2nd): DB-1701P

Compound	RT	RT WI NDOW		Avg CF	CC CF	%D
		FROM	TO			
Aroclor-1016	3.37	3.30	3.44	472343	426018	9.81
Aroclor-1016 {2}	3.93	3.86	4.00	979824	834461	14.84
Aroclor-1016 {3}	4.66	4.58	4.72	2129555	1896322	10.95
Aroclor-1016 {4}	4.86	4.78	4.92	873562	794893	9.01
Aroclor-1016 {5}	5.02	4.95	5.09	673582	611605	9.20
Aroclor-1260	7.34	6.44	8.24	880372	809055	8.10
Aroclor-1260 {2}	7.59	6.69	8.49	1211219	1075506	11.20
Aroclor-1260 {3}	9.18	8.27	10.07	1021126	899200	11.94
Aroclor-1260 {4}	9.69	8.79	10.59	2296813	1994027	13.18
Aroclor-1260 {5}	10.27	9.37	11.17	1635932	1393705	14.81

# PCB RETENTION TIME SHIFT SUMMARY

**Instrument ID:** GC-R

**Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1	<u>2.74</u>	DCB 1	<u>12.09</u>	TCMX 2	<u>2.57</u>	DCB 2	<u>11.95</u>
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Client ID	Lab	Date	Time	TCMX 1	DCB 1	TCMX 2	DCB 2
Client ID	Sample ID	Analyzed	Analyzed	RT #	RT #	RT #	RT #
PCB	BLKS131021-07	10/22/2013	15:28	2.74	12.09	2.57	11.95
PCB	LCSS131021-07	10/22/2013	15:45	2.74	12.09	2.56	11.94
S-108	E13-10295-001	10/22/2013	16:25	2.74	12.09	2.57	11.94
S-109	E13-10295-002	10/22/2013	17:27	2.74	12.09	2.57	11.94
S-110	E13-10295-003	10/22/2013	17:44	2.74	12.09	2.57	11.94
CC-39S(5	E13-10300-001	10/22/2013	19:47	2.75	12.09	2.57	11.94
II-35(4.	E13-10300-002	10/22/2013	20:04	2.74	12.09	2.57	11.94
CC-40S(5	E13-10300-003	10/22/2013	20:21	2.75	12.09	2.57	11.94
DD-43/EE	E13-10300-005	10/22/2013	20:56	2.75	12.09	2.57	11.94
CC-44N(2	E13-10300-006	10/22/2013	21:14	2.74	12.15	2.57	11.88
CC-44N(3	E13-10300-007	10/22/2013	21:31	2.74	12.09	2.57	11.93
SS-1	E13-10334-001	10/22/2013	22:06	2.75	12.09	2.57	11.94
SS-2	E13-10334-002	10/22/2013	22:23	2.75	12.09	2.57	11.94
SS-3	E13-10334-003	10/22/2013	22:41	2.75	12.09	2.57	11.94
SS-4	E13-10334-004	10/22/2013	22:58	2.75	12.09	2.57	11.94
SW-1A	E13-10345-001	10/22/2013	23:51	2.74	12.09	2.57	11.94
SW-2A	E13-10345-002	10/23/2013	00:08	2.74	12.09	2.57	11.94
SW-3A	E13-10345-003	10/23/2013	00:26	2.75	12.09	2.57	11.94
SW-4A	E13-10345-004	10/23/2013	00:43	2.75	12.09	2.57	11.94
SW-1B	E13-10345-005	10/23/2013	01:00	2.75	12.09	2.57	11.94
PCB	10345-005MS	10/23/2013	01:18	2.74	12.09	2.57	11.94
PCB	10345-005MSD	10/23/2013	01:35	2.75	12.09	2.57	11.94
BB-43R(3	E13-10300-004	10/23/2013	11:49	2.75	12.09	2.57	11.94
CC-44N(2	E13-10300-006DL	10/23/2013	12:07	0.00 D	0.00 D	0.00 D	0.00 D
FF-43N(3	E13-10300-008	10/23/2013	12:24	2.74	12.09	2.57	11.94

Surrogate QC Limits

**TCMX = Tetrachloro-m-xylene**

(  $\pm$  0.10 Minutes )

**DCB = Decachlorobiphenyl**

(  $\pm$  0.10 Minutes )

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

## PCB RETENTION TIME SHIFT SUMMARY

**Instrument ID:** GC-Y

**Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1	<u>2.77</u>	DCB 1	<u>12.04</u>	TCMX 2	<u>2.89</u>	DCB 2	<u>12.48</u>
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Client ID	Lab	Date Analyzed	Time Analyzed	TCMX 1 RT #	DCB 1 RT #	TCMX 2 RT #	DCB 2 RT #
PCB	BLKA131021-17	10/22/2013	21:25	2.77	12.04	2.89	12.48
PCB	LCSA131021-17	10/22/2013	21:43	2.77	12.04	2.89	12.48
OUTFALL	E13-10256-001	10/22/2013	22:00	2.77	12.04	2.89	12.48
FB-21	E13-10192-011	10/22/2013	22:17	2.77	12.04	2.89	12.48
FB-22	E13-10227-014	10/22/2013	22:35	2.77	12.04	2.89	12.48
PCB	E13-10256-001MS	10/22/2013	22:52	2.77	12.04	2.89	12.48
PCB	E13-10256-001MSD	10/22/2013	23:09	2.77	12.04	2.89	12.48

Surrogate QC Limits

**TCMX = Tetrachloro-m-xylene** (  $\pm$  0.10 Minutes )

**DCB = Decachlorobiphenyl** (  $\pm$  0.10 Minutes )

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

# PCB RETENTION TIME SHIFT SUMMARY

**Instrument ID:** GC-R

**Column:** DB-5/DB-1701P

Surrogate RT from initial calibration :

TCMX 1	<u>2.74</u>	DCB 1	<u>12.09</u>	TCMX 2	<u>2.57</u>	DCB 2	<u>11.95</u>
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Client ID	Sample ID	Lab	Date Analyzed	Time Analyzed	TCMX 1 RT #	DCB 1 RT #	TCMX 2 RT #	DCB 2 RT #
PCB	BLKA131023-07		10/23/2013	13:58	2.74	12.09	2.57	11.95
PCB	LCSA131023-07		10/23/2013	14:16	2.74	12.09	2.56	11.94
ES-PTCB-	E13-10415-001		10/23/2013	14:41	2.74	12.09	2.57	11.95
ES-PTCB-	E13-10415-002		10/23/2013	14:59	2.74	12.09	2.57	11.94
FB-23	E13-10300-009		10/23/2013	15:16	2.74	12.09	2.57	11.94
TW-13/22	E13-10410-012		10/23/2013	15:34	2.74	12.09	2.57	11.94
FB-24	E13-10361-010		10/23/2013	15:51	2.75	12.09	2.57	11.94
EFFLUENT	E13-10376-001		10/23/2013	16:08	2.74	12.09	2.57	11.94

Surrogate QC Limits

**TCMX = Tetrachloro-m-xylene**

(  $\pm$  0.10 Minutes )

**DCB = Decachlorobiphenyl**

(  $\pm$  0.10 Minutes )

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

M Matrix interference

**PCB SAMPLE DATA**

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Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : R4928.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 19:47  
 Operator : JS  
 Sample : CC-39S(5,E13-10300-001,S,5.23g,22.4,20  
 Misc : 131021-07,10/21/13,10/16/13,1  
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 09:44:09 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2662.1E6	5138.9E6	220.637	195.697
Spiked Amount	200.000			Recovery	= 110.32%	97.85%
2) S DCB	12.09	11.94	606.1E6	1233.3E6	153.660	148.873
Spiked Amount	200.000			Recovery	= 76.83%	74.44%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.45	4.66	177.3E6	331.3E6	271.969	235.370
24) L6 Aroclor-1248 {2}	4.99	5.22	42928055	254.2E6	114.348	119.613
25) L6 Aroclor-1248 {3}	5.31	5.61	59125169	182.0E6	120.132m	120.090
26) L6 Aroclor-1248 {4}	6.01	5.76	39268696	140.7E6	47.884	103.049 #
27) L6 Aroclor-1248 {5}	6.30	6.11	31263650	40567659	55.912	55.245
Sum Aroclor-1248			349.9E6	948.8E6	610.244	633.367
Average Aroclor-1248					122.049	126.673
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

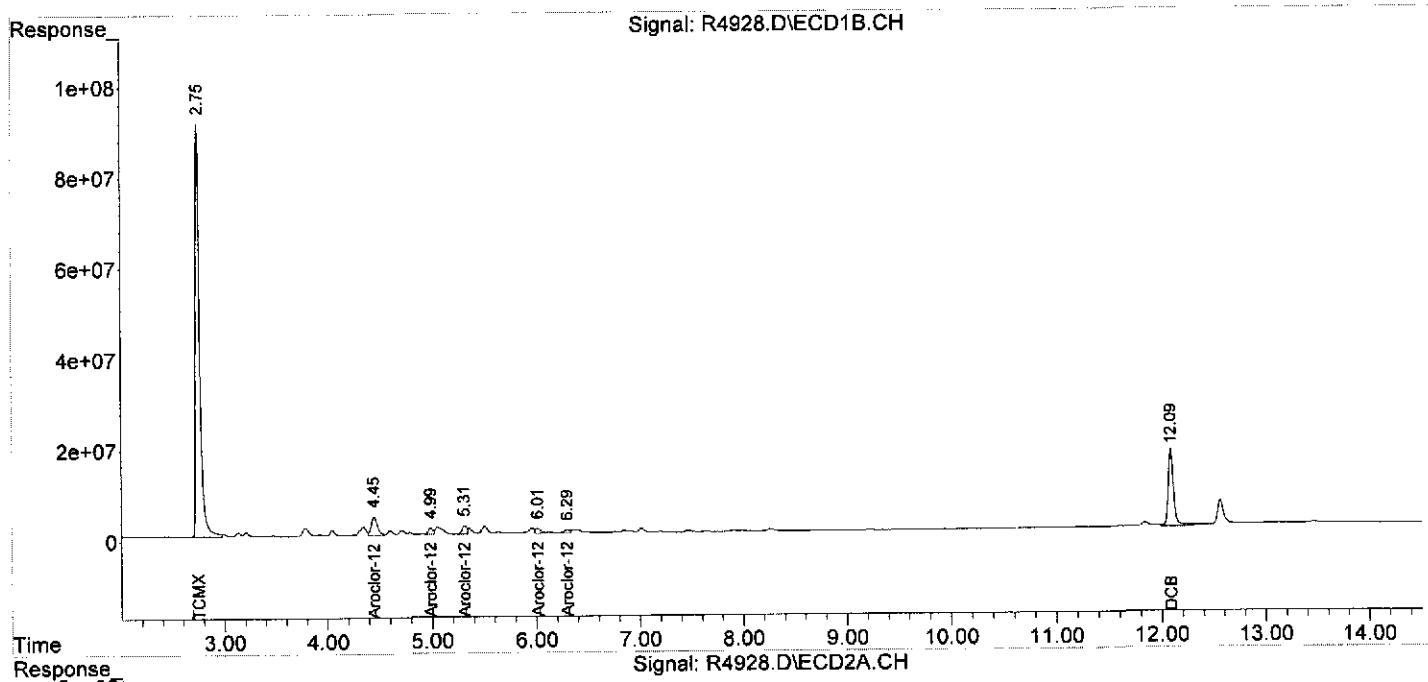
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : R4928.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 19:47  
Operator : JS  
Sample : CC-39S(5,E13-10300-001,S,5.23g,22.4,20  
Misc : 131021-07,10/21/13,10/16/13,1  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 09:44:09 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : R4929.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 20:04  
 Operator : JS  
 Sample : II-35(4.,E13-10300-002,S,5.49g,22.0,20  
 Misc : 131021-07,10/21/13,10/16/13,1  
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 09:45:45 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.57	2755.3E6	5306.6E6	228.363	202.083
Spiked Amount	200.000			Recovery	= 114.18%	101.04%
2) S DCB	12.09	11.94	693.5E6	1137.6E6	175.820	137.327
Spiked Amount	200.000			Recovery	= 87.91%	68.66%
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.44	4.65	6987479	13571796	10.716	9.641
24) L6 Aroclor-1248	{2}	4.98	5.22	4122861	27690873	10.982
25) L6 Aroclor-1248	{3}	5.31	5.61	17523441	18081589	35.605
26) L6 Aroclor-1248	{4}	6.01	5.76	13683161	14267401	16.685
27) L6 Aroclor-1248	{5}	0.00	6.12	0	16016147	N.D. d
Sum Aroclor-1248				42316942	89627806	21.811 #
Average Aroclor-1248					73.988	66.861
					18.497	13.372
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

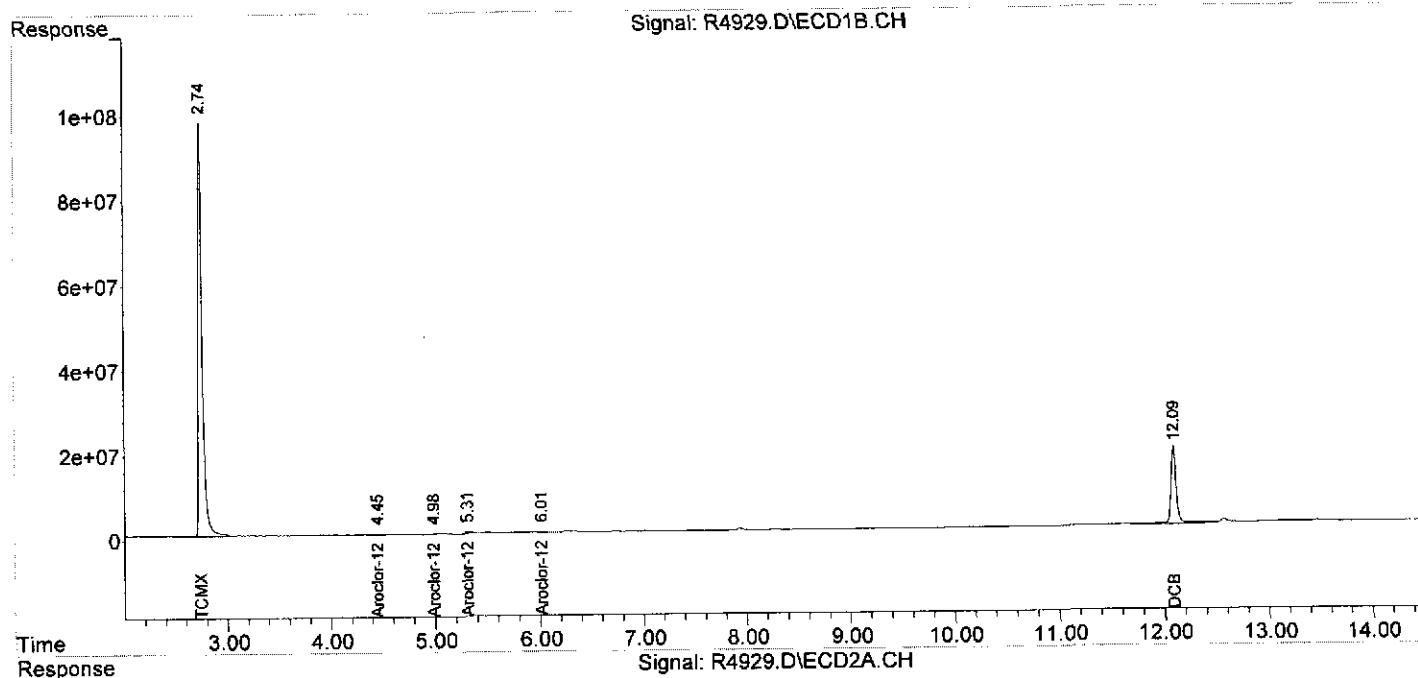
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : R4929.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 20:04  
Operator : JS  
Sample : II-35(4.,E13-10300-002,S,5.49g,22.0,20  
Misc : 131021-07,10/21/13,10/16/13,1  
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 09:45:45 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : R4930.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 20:21  
 Operator : JS  
 Sample : CC-40S(5,E13-10300-003,S,5.20g,21.4,20  
 Misc : 131021-07,10/21/13,10/16/13,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 09:47:26 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

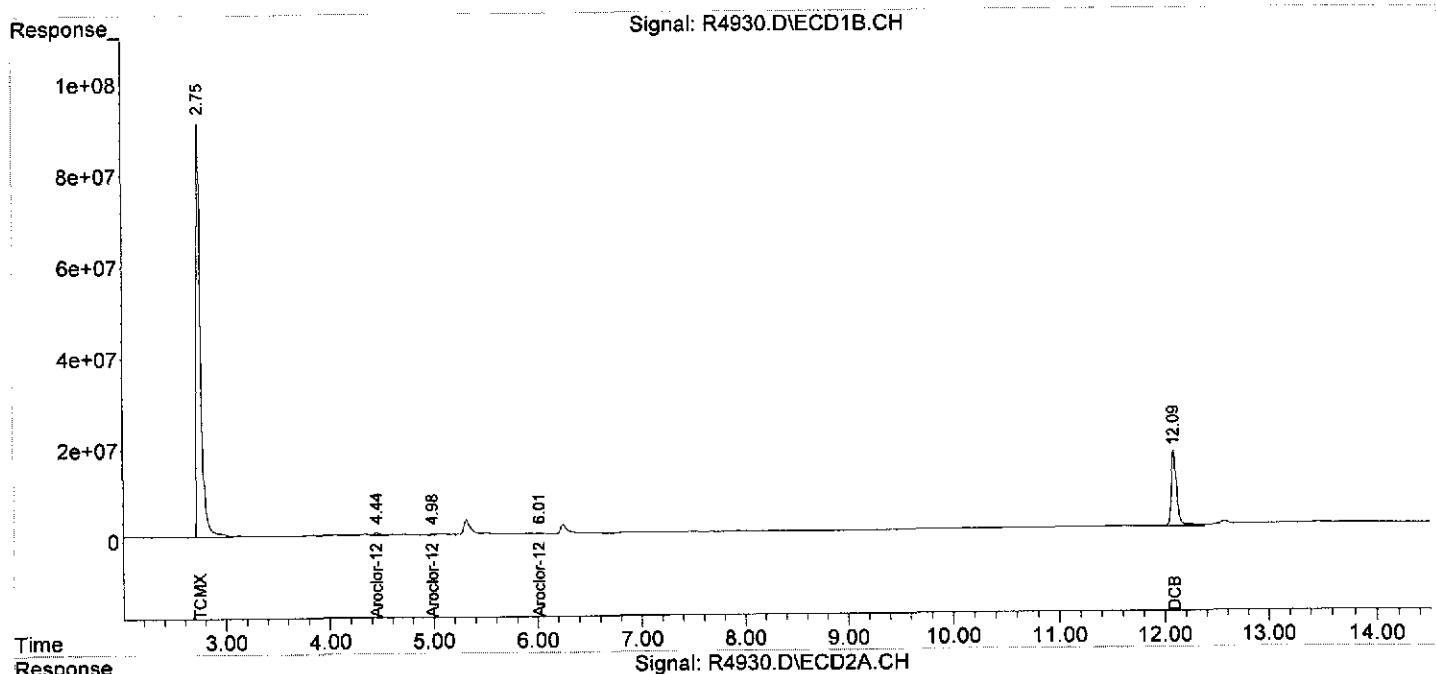
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2604.0E6	4960.8E6	215.818	188.916
Spiked Amount	200.000			Recovery	= 107.91%	94.46%
2) S DCB	12.09	11.94	644.3E6	1078.0E6	163.351	130.133
Spiked Amount	200.000			Recovery	= 81.68%	65.07%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.44	4.66	19547203	39218818	29.977	27.861
24) L6 Aroclor-1248	{2}	4.98	5.22	5041567	34005870	13.429
25) L6 Aroclor-1248	{3}	0.00	5.61	0	24311370	N.D. d
26) L6 Aroclor-1248	{4}	6.01	5.76	5604481	17434100	6.834m
27) L6 Aroclor-1248	{5}	0.00	6.13	0	11846159	N.D. d
Sum Aroclor-1248				30193251	126.8E6	50.240
Average Aroclor-1248					16.747	17.760
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : R4930.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 20:21  
Operator : JS  
Sample : CC-40S(5,E13-10300-003,S,5.20g,21.4,20  
Misc : 131021-07,10/21/13,10/16/13,1  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 09:47:26 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
 Data File : R4949.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 23 Oct 2013 11:49  
 Operator : JS  
 Sample : BB-43R(3,E13-10300-004,S,5.52g,26.9,20  
 Misc : 131021-07,10/21/13,10/16/13,1  
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 10:11:24 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

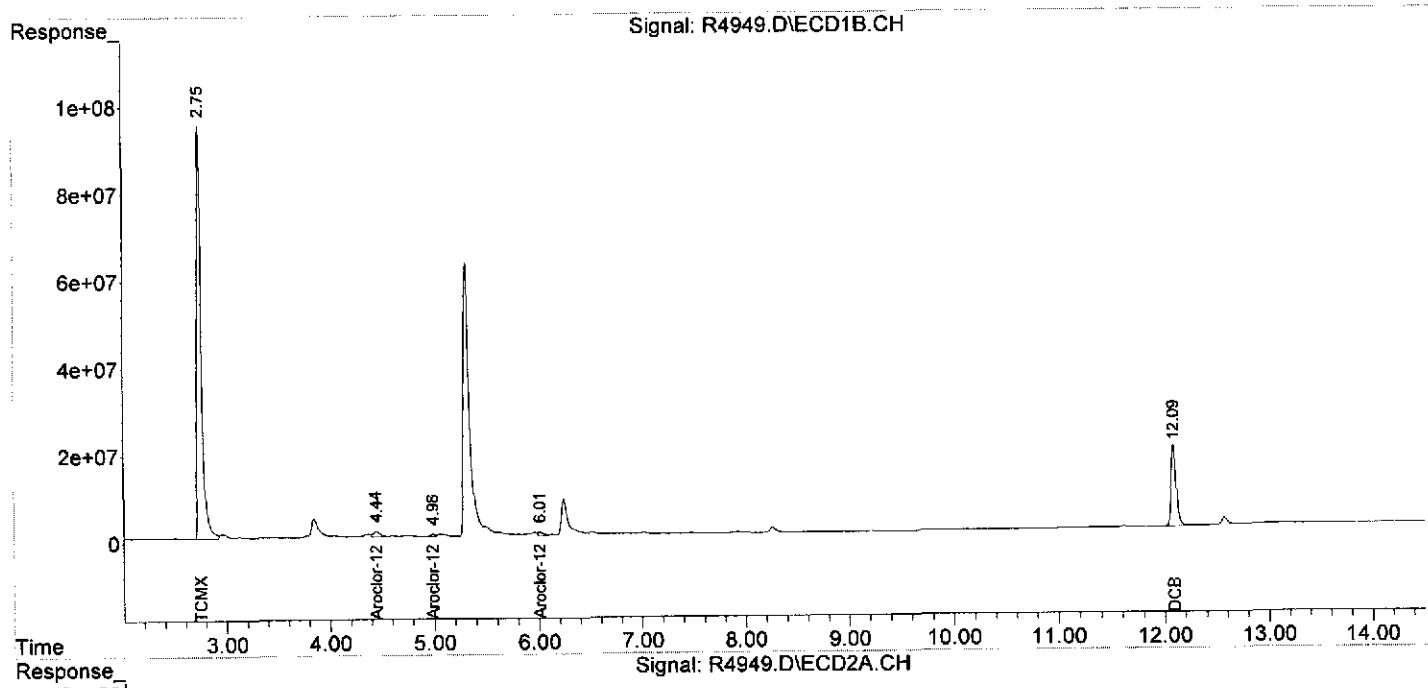
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2808.5E6	5308.6E6	232.766	202.160
Spiked Amount	200.000			Recovery	= 116.38%	101.08%
2) S DCB	12.09	11.94	640.4E6	1291.3E6	162.366	155.877
Spiked Amount	200.000			Recovery	= 81.18%	77.94%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.44	4.66	61359907	91901887	94.100	65.287 #
24) L6 Aroclor-1248	{2}	4.98	5.22	15197080	96590530	40.481 45.447
25) L6 Aroclor-1248	{3}	0.00	5.61	0	102.3E6	N.D. d 67.470 #
26) L6 Aroclor-1248	{4}	6.01	5.76	30418690	54454379	37.092 39.880
27) L6 Aroclor-1248	{5}	0.00	6.11	0	22089858	N.D. d 30.082 #
Sum Aroclor-1248				107.0E6	367.3E6	171.673 248.167
Average Aroclor-1248						57.224 49.633
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
Data File : R4949.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 23 Oct 2013 11:49  
Operator : JS  
Sample : BB-43R(3,E13-10300-004,S,5.52g,26.9,20  
Misc : 131021-07,10/21/13,10/16/13,1  
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 10:11:24 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : R4932.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 20:56  
 Operator : JS  
 Sample : DD-43/EE,E13-10300-005,S,5.65g,21.1,20  
 Misc : 131021-07,10/21/13,10/16/13,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 09:52:50 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

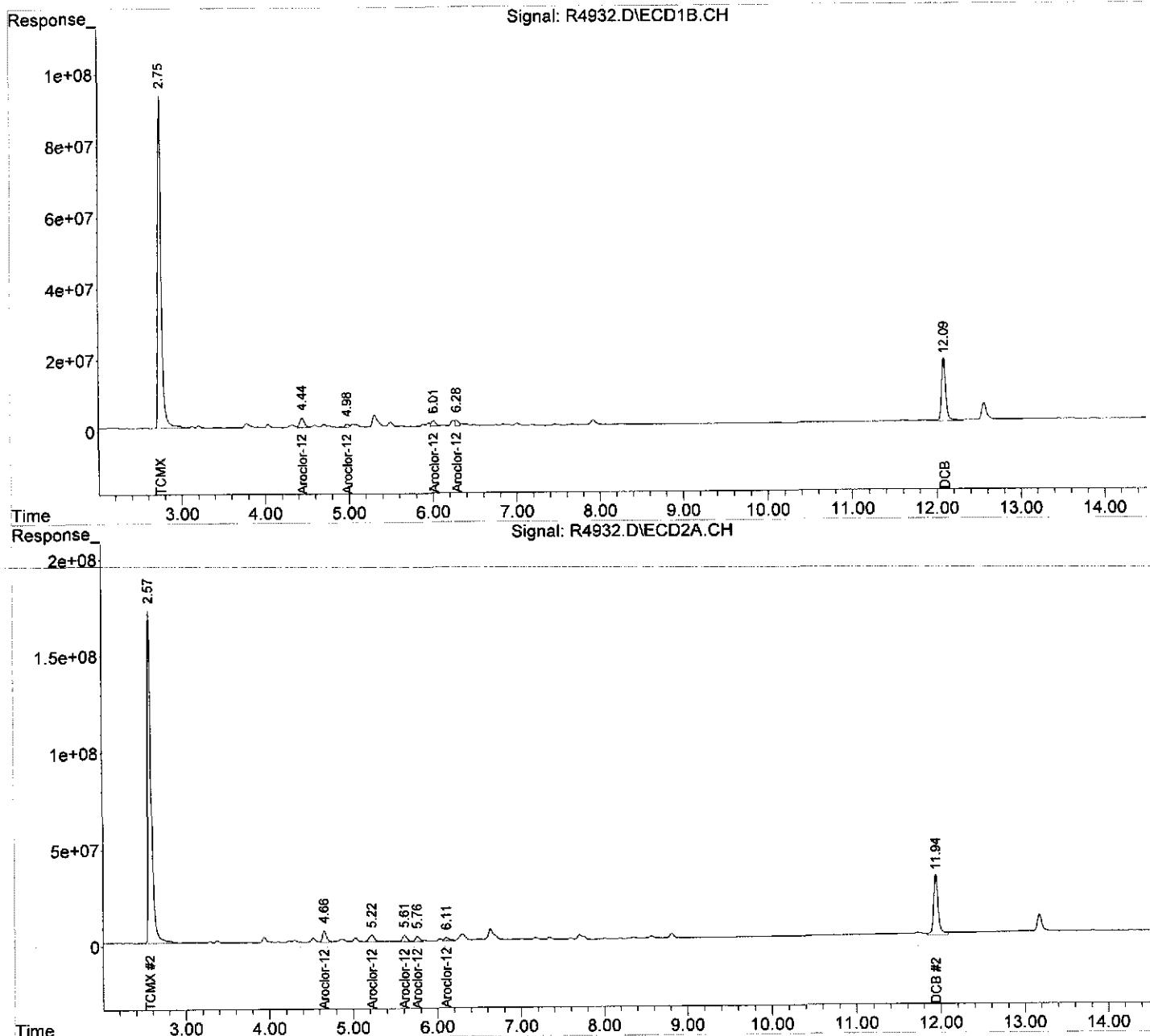
Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.75	2.57	2688.4E6	5219.3E6	222.819	198.758
Spiked Amount	200.000			Recovery	= 111.41%	99.38%
2) S DCB	12.09	11.94	635.8E6	1205.1E6	161.180	145.474
Spiked Amount	200.000			Recovery	= 80.59%	72.74%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.45	4.66	112.2E6	206.0E6	172.061	146.331
24) L6 Aroclor-1248 {2}	4.99	5.22	29411206	173.7E6	78.343	81.714
25) L6 Aroclor-1248 {3}	0.00	5.61	0	133.7E6	N.D. d	88.194 #
26) L6 Aroclor-1248 {4}	6.01	5.76	59424970	103.6E6	72.462	75.856
27) L6 Aroclor-1248 {5}	6.28	6.11	49776406	74768263	89.020m	101.819
Sum Aroclor-1248			250.8E6	691.7E6	411.886	493.915
Average Aroclor-1248					102.972	98.783
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : R4932.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 20:56  
Operator : JS  
Sample : DD-43/EE,E13-10300-005,S,5.65g,21.1,20  
Misc : 131021-07,10/21/13,10/16/13,1  
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 09:52:50 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : R4933.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 21:14  
 Operator : JS  
 Sample : CC-44N(2,E13-10300-006,S,5.12g,60.8,20  
 Misc : 131021-07,10/21/13,10/16/13,5  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 10:25:07 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.57	2880.6E6	684.9E6	238.748	26.083 #
Spiked Amount	200.000			Recovery	= 119.37%	13.04%
2) S DCB	12.15	11.88	1008.3E6	3931.8E6	255.639	474.618 #
Spiked Amount	200.000			Recovery	= 127.82%	237.31%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
23) L6 Aroclor-1248	4.46	4.68	14740.9E6	28741.5E6	22606.234	20417.959
24) L6 Aroclor-1248 {2}	4.99	5.23	5779.8E6	31840.4E6	15395.598	14981.445
25) L6 Aroclor-1248 {3}	5.31	5.61	50895.3E6	22207.0E6	103410.588	14652.425 #
26) L6 Aroclor-1248 {4}	6.01	5.76	15923.8E6	19914.6E6	19417.396	14584.677
27) L6 Aroclor-1248 {5}	6.24	6.10	66549.9E6	11575.6E6	119017.160	15763.619 #
Sum Aroclor-1248			153889.7E6	114279.1E6	279846.976	80400.125
Average Aroclor-1248					55969.395	16080.025
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

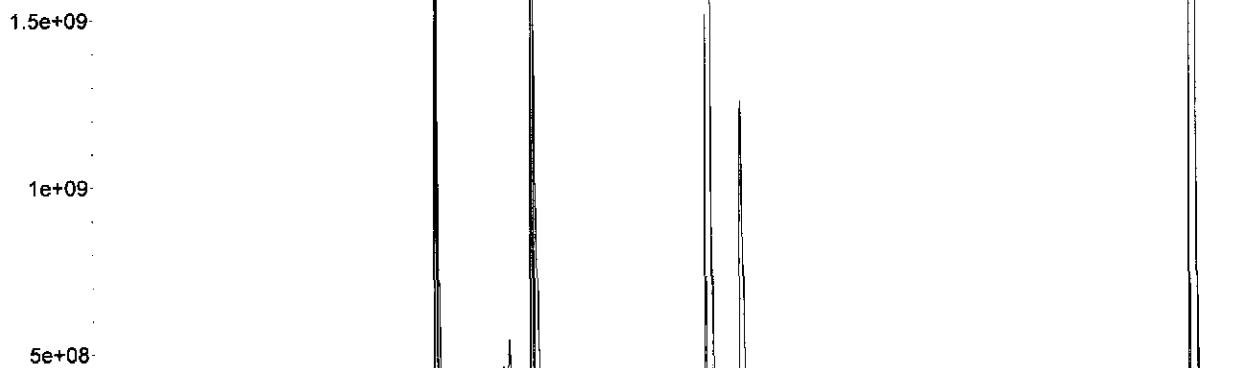
Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : R4933.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 21:14  
Operator : JS  
Sample : CC-44N(2,E13-10300-006,S,5.12g,60.8,20  
Misc : 131021-07,10/21/13,10/16/13,5  
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 10:25:07 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

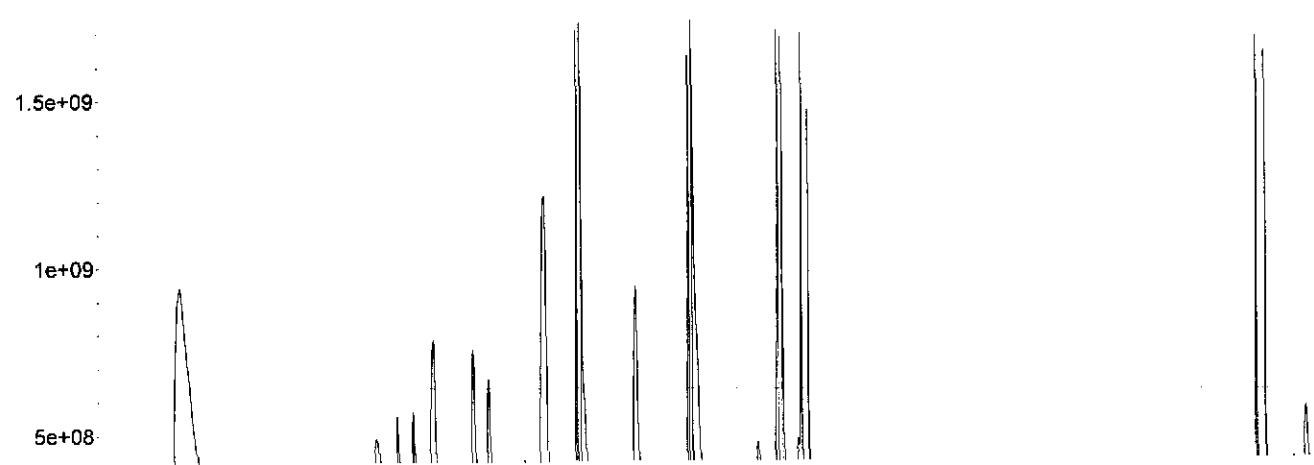
Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :

Response\_

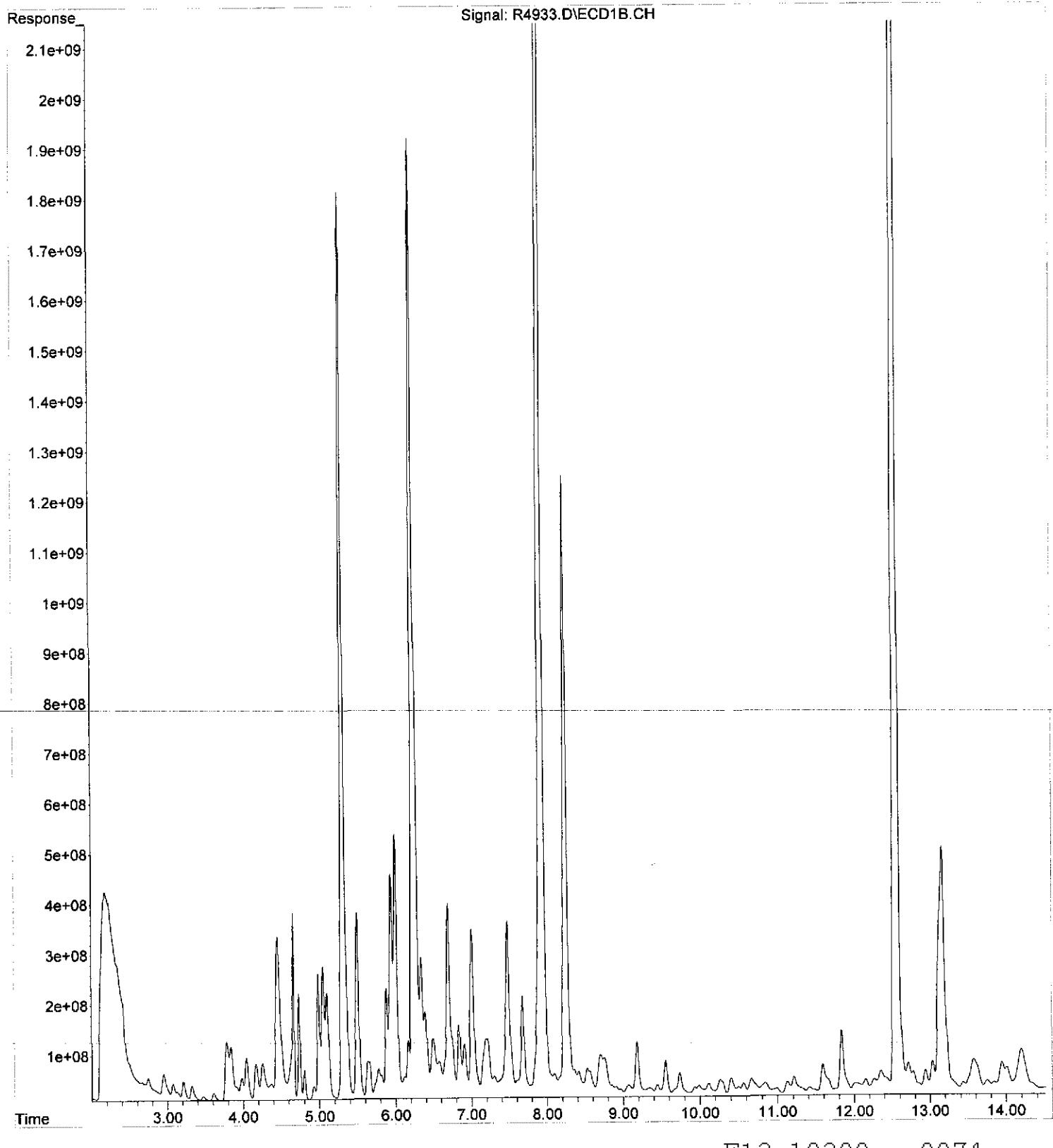
Signal: R4933.D\ECD1B.CH

Time  
Response\_

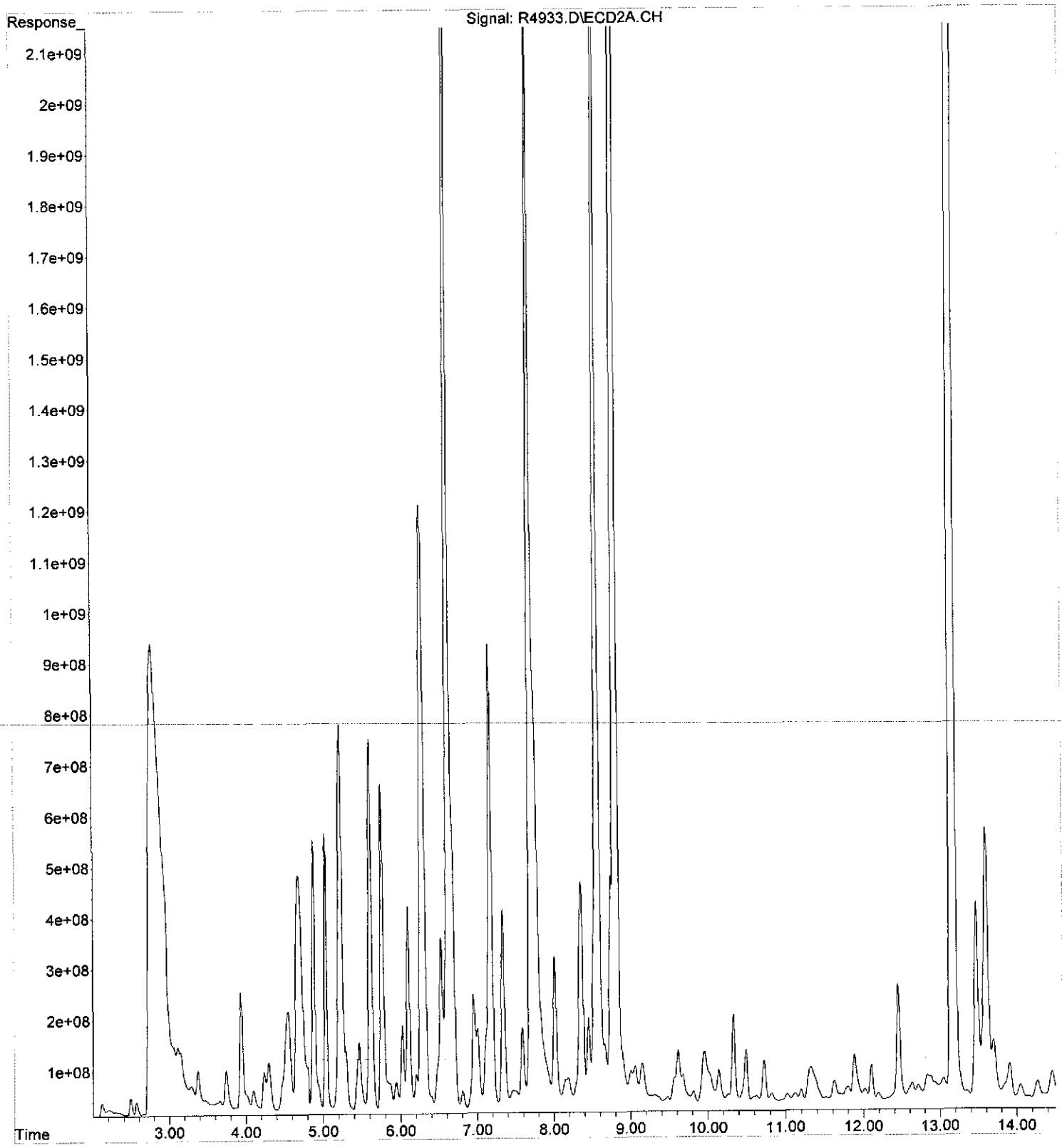
Signal: R4933.D\ECD2A.CH



File : C:\MSDChem\1\DATA\10-22-13\R4933.D  
Operator : JS  
Acquired : 22 Oct 2013 21:14 using AcqMethod RPCB1018.M  
Instrument : GC\_R  
Sample Name: CC-44N(2,E13-10300-006,S,5.12g,60.8,20  
Misc Info : 131021-07,10/21/13,10/16/13,5  
Vial Number: 12



File : C:\MSDChem\1\DATA\10-22-13\R4933.D  
Operator : JS  
Acquired : 22 Oct 2013 21:14 using AcqMethod RPCB1018.M  
Instrument : GC\_R  
Sample Name: CC-44N(2,E13-10300-006,S,5.12g,60.8,20  
Misc Info : 131021-07,10/21/13,10/16/13,5  
Vial Number: 12



## Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
 Data File : R4950.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 23 Oct 2013 12:07  
 Operator : JS  
 Sample : CC-44N(2,E13-10300-006DL,S,5.12g,60.8,20  
 Misc : 131021-07,10/21/13,10/16/13,100  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 10:13:17 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
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## System Monitoring Compounds

## Target Compounds

Sum Aroclor-1016		0	0	N.D.	N.D.
Average Aroclor-1016				0.000	0.000

Sum Aroclor-1221		0	0	N.D.	N.D.
Average Aroclor-1221				0.000	0.000

Sum Aroclor-1232		0	0	N.D.	N.D.
Average Aroclor-1232				0.000	0.000

Sum Aroclor-1242		0	0	N.D.	N.D.
Average Aroclor-1242				0.000	0.000

23) L6 Aroclor-1248	4.44	4.66	730.7E6	1372.4E6	1120.590	974.946
24) L6 Aroclor-1248 {2}	4.98	5.22	312.5E6	1664.4E6	832.308	783.142
25) L6 Aroclor-1248 {3}	0.00	5.60	0	1253.3E6	N.D. d	826.954 #
26) L6 Aroclor-1248 {4}	6.00	5.76	871.9E6	1107.1E6	1063.202	810.789
27) L6 Aroclor-1248 {5}	0.00	6.10	0	657.4E6	N.D. d	895.271 #
Sum Aroclor-1248			1915.1E6	6054.6E6	3016.099	4291.102
Average Aroclor-1248					1005.366	858.220

Sum Aroclor-1254		0	0	N.D.	N.D.
Average Aroclor-1254				0.000	0.000

Sum Aroclor-1260		0	0	N.D.	N.D.
Average Aroclor-1260				0.000	0.000

Sum Aroclor-1262		0	0	N.D.	N.D.
Average Aroclor-1262				0.000	0.000

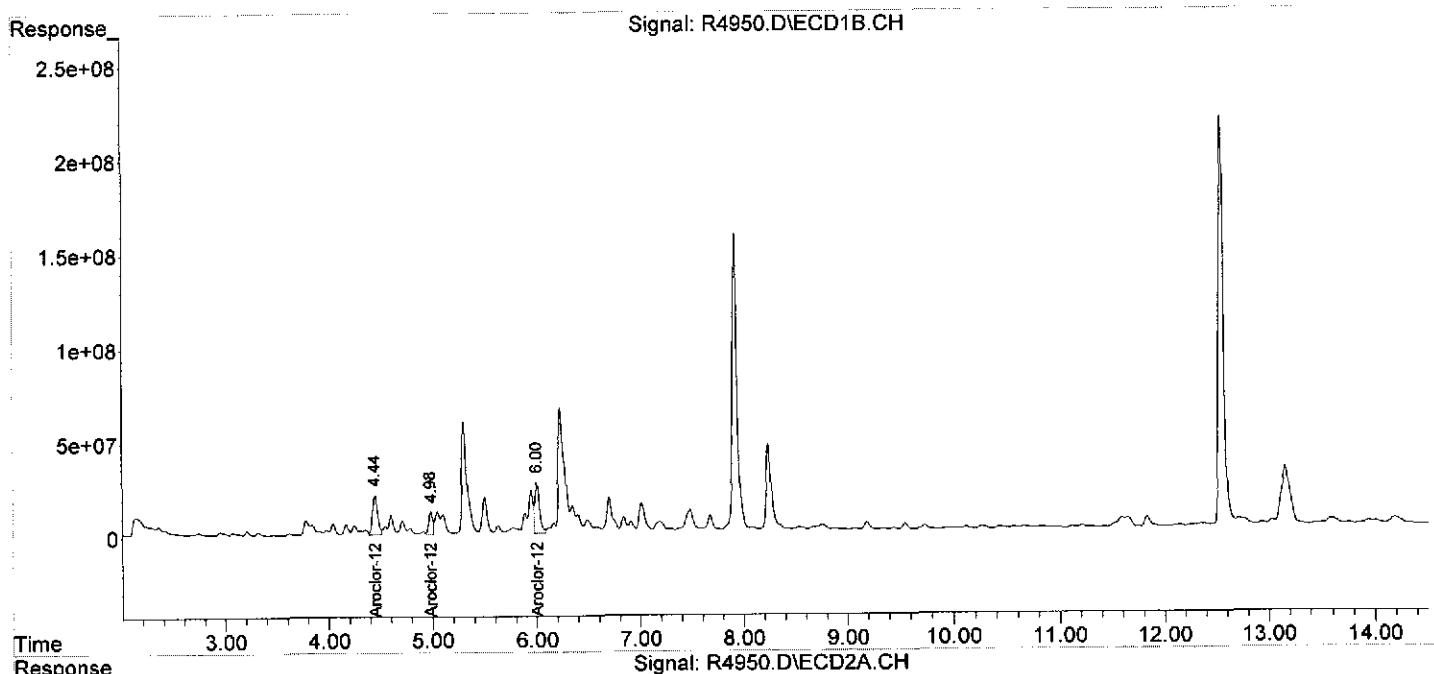
Sum Aroclor-1268		0	0	N.D.	N.D.
Average Aroclor-1268				0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
Data File : R4950.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 23 Oct 2013 12:07  
Operator : JS  
Sample : CC-44N(2,E13-10300-006DL,S,5.12g,60.8,20  
Misc : 131021-07,10/21/13,10/16/13,100  
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 10:13:17 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : R4934.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 21:31  
 Operator : JS  
 Sample : CC-44N(3,E13-10300-007,S,5.83g,25.2,20  
 Misc : 131021-07,10/21/13,10/16/13,1  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 10:07:04 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.57	2369.9E6	4431.8E6	196.418	168.769
Spiked Amount	200.000			Recovery	=	84.38%
2) S DCB	12.09	11.93	755.3E6	1673.8E6	191.496	202.056m
Spiked Amount	200.000			Recovery	=	101.03%
 Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
18) L5 Aroclor-1242	4.04	4.30	334.8E6	366.4E6	1238.412	1013.322
19) L5 Aroclor-1242 {2}	4.98	5.02	224.5E6	697.1E6	1336.441	1171.280
20) L5 Aroclor-1242 {3}	0.00	5.61		0 1120.8E6	N.D. d	1416.981 #
21) L5 Aroclor-1242 {4}	6.01	5.76	561.6E6	869.0E6	1504.857	1323.059
22) L5 Aroclor-1242 {5}	0.00	6.29		0 1652.9E6	N.D. d	1318.114 #
Sum Aroclor-1242			1120.8E6	4706.1E6	4079.710	6242.755
Average Aroclor-1242					1359.903	1248.551
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000

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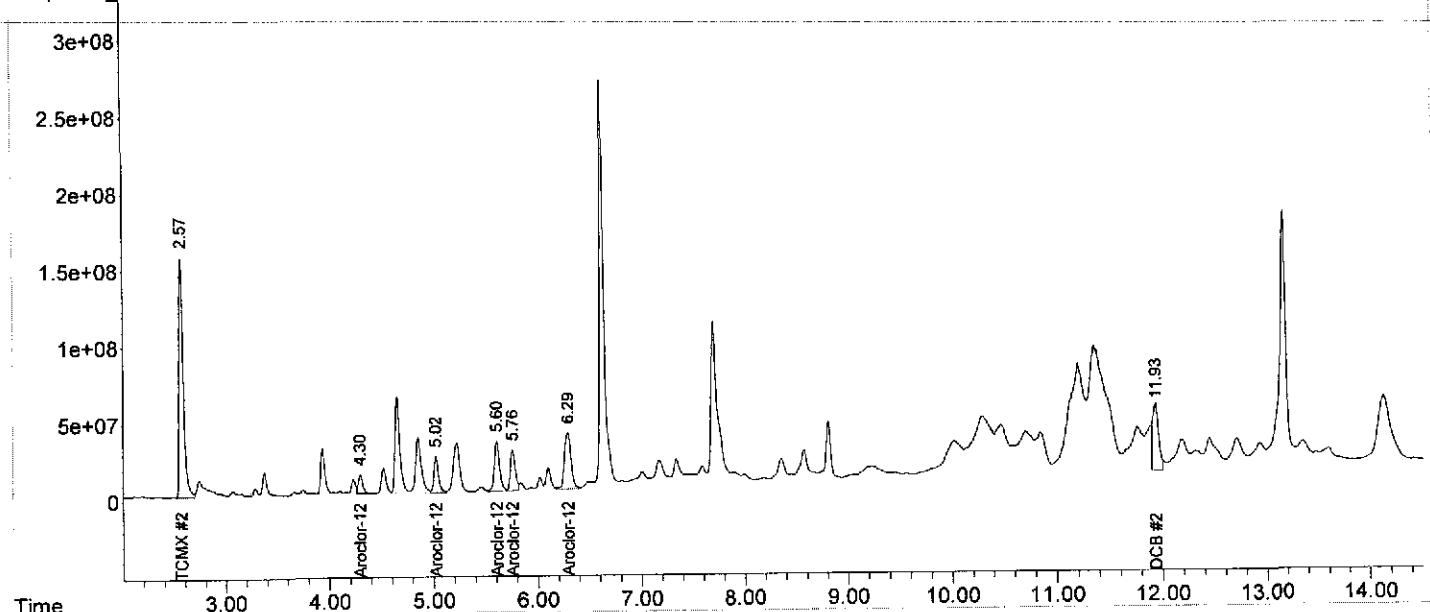
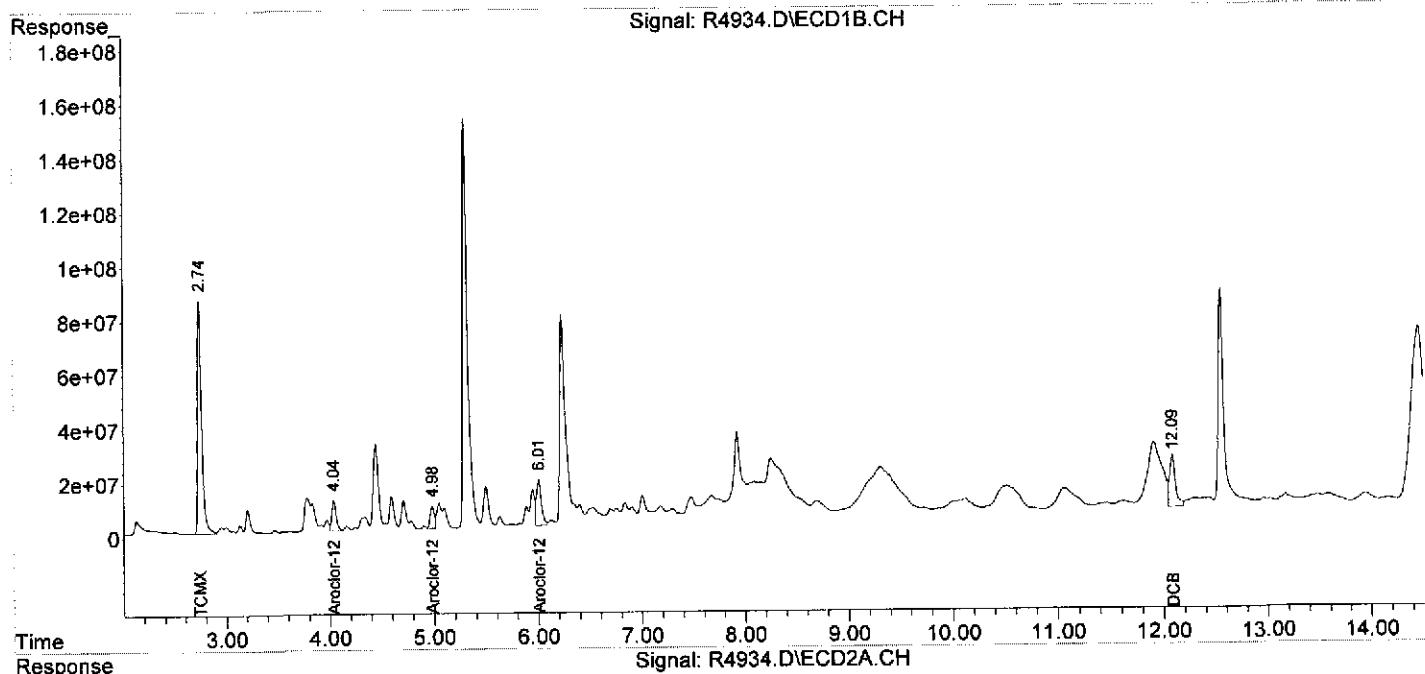
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : R4934.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 21:31  
Operator : JS  
Sample : CC-44N(3,E13-10300-007,S,5.83g,25.2,20  
Misc : 131021-07,10/21/13,10/16/13,1  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 10:07:04 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
 Data File : R4951.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 23 Oct 2013 12:24  
 Operator : JS  
 Sample : FF-43N(3,E13-10300-008,S,5.69g,23.8,20  
 Misc : 131021-07,10/21/13,10/16/13,2  
 ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 28 10:15:38 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2	
<hr/>								
System Monitoring Compounds								
1) S	TCMX	2.74	2.57	1335.3E6	2507.5E6	110.674	95.488	
Spiked Amount	200.000			Recovery	=	55.34%	47.74%	
2) S	DCB	12.09	11.94	327.1E6	836.7E6	82.937	101.000	
Spiked Amount	200.000			Recovery	=	41.47%	50.50%	
<hr/>								
Target Compounds								
Sum Aroclor-1016				0	0	N.D.	N.D.	
Average Aroclor-1016						0.000	0.000	
Sum Aroclor-1221				0	0	N.D.	N.D.	
Average Aroclor-1221						0.000	0.000	
Sum Aroclor-1232				0	0	N.D.	N.D.	
Average Aroclor-1232						0.000	0.000	
Sum Aroclor-1242				0	0	N.D.	N.D.	
Average Aroclor-1242						0.000	0.000	
23) L6	Aroclor-1248	4.44	4.65	1201.5E6	2044.6E6	1842.637	1452.453	
24) L6	Aroclor-1248	{2}	4.98	5.22	258.7E6	1414.1E6	689.195	665.354
25) L6	Aroclor-1248	{3}	0.00	5.61	0	1131.5E6	N.D. d	746.593 #
26) L6	Aroclor-1248	{4}	6.01	5.76	732.4E6	924.1E6	893.107	676.739
27) L6	Aroclor-1248	{5}	0.00	6.10	0	566.7E6	N.D. d	771.773 #
Sum Aroclor-1248				2192.7E6	6081.0E6	3424.940	4312.912	
Average Aroclor-1248						1141.647	862.582	
Sum Aroclor-1254				0	0	N.D.	N.D.	
Average Aroclor-1254						0.000	0.000	
Sum Aroclor-1260				0	0	N.D.	N.D.	
Average Aroclor-1260						0.000	0.000	
Sum Aroclor-1262				0	0	N.D.	N.D.	
Average Aroclor-1262						0.000	0.000	
Sum Aroclor-1268				0	0	N.D.	N.D.	
Average Aroclor-1268						0.000	0.000	
<hr/>								

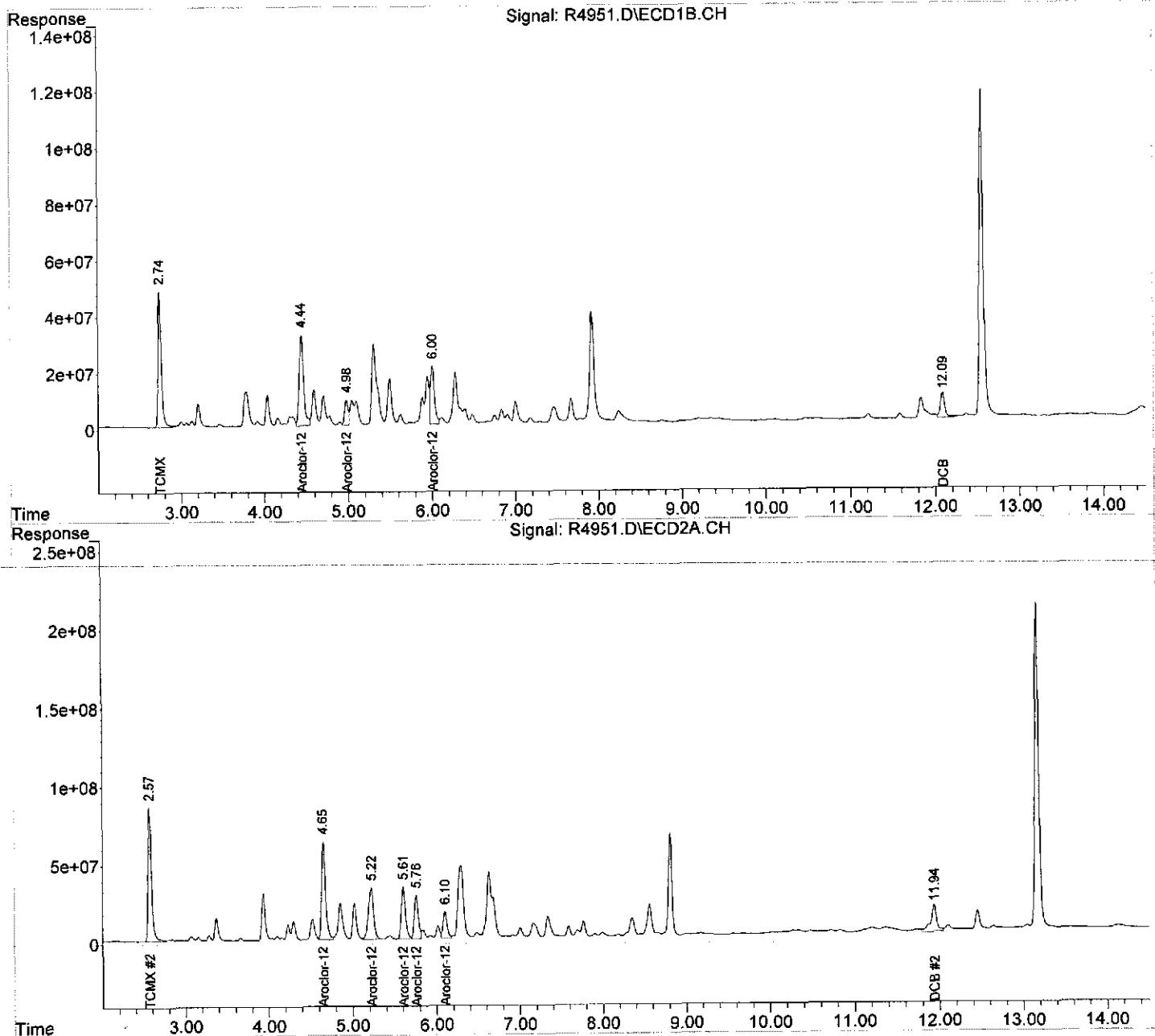
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
Data File : R4951.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 23 Oct 2013 12:24  
Operator : JS  
Sample : FF-43N(3,E13-10300-008,S,5.69g,23.8,20  
Misc : 131021-07,10/21/13,10/16/13,2  
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 28 10:15:38 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
 Data File : R4957.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 23 Oct 2013 15:16  
 Operator : NG  
 Sample : FB-23,E13-10300-009,A,1000ml,100,5  
 Misc : 131023-07,10/23/13,10/16/13,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 23 15:57:42 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.57	2243.5E6	4192.7E6	185.941	159.667
Spiked Amount	200.000			Recovery	=	92.97% 79.83%
2) S DCB	12.09	11.94	533.2E6	961.5E6	135.177	116.072
Spiked Amount	200.000			Recovery	=	67.59% 58.04%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

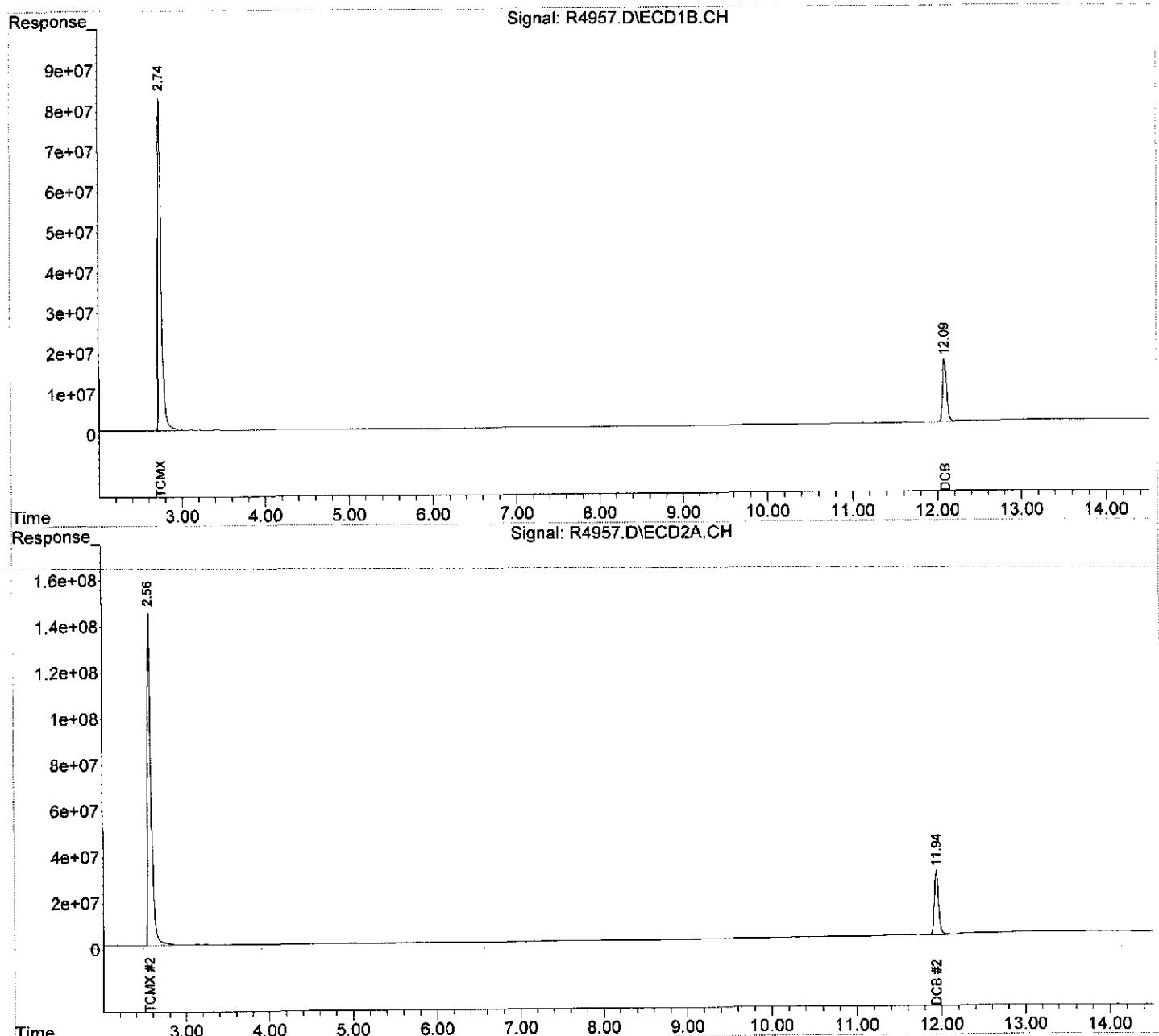
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
Data File : R4957.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 23 Oct 2013 15:16  
Operator : NG  
Sample : FB-23,E13-10300-009,A,1000ml,100,5  
Misc : 131023-07,10/23/13,10/16/13,1  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 23 15:57:42 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: BLKA131021-17

GC Column: DB-5/DB1701P

Client ID: PCB

Sample wt/vol: 1000ml

Date Received: NA

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Date Extracted: 10/21/2013

Dilution Factor: 1

Date Analyzed: 10/22/2013

% Moisture: 100

Data file: Y2409.D

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed

B --- Compound detected in Blank

J --- Value Less than RL &amp; great than MDL

C --- Common laboratory contamination

E --- Exceeds upper level of Calibration curve

**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: BLKA131023-07

Client ID: PCB

Date Received: NA

Date Extracted: 10/23/2013

Date Analyzed: 10/23/2013

Data file: R4953.D

GC Column: DB-5/DB1701P

Sample wt/vol: 1000ml

Matrix-Units: Aqueous- $\mu$ g/L (ppb)

Dilution Factor: 1

% Moisture: 100

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.050	0.020
Aroclor-1221	ND		0.050	0.020
Aroclor-1232	ND		0.050	0.020
Aroclor-1242	ND		0.050	0.020
Aroclor-1248	ND		0.050	0.020
Aroclor-1254	ND		0.050	0.020
Aroclor-1260	ND		0.050	0.020
Aroclor-1262	ND		0.050	0.020
Aroclor-1268	ND		0.050	0.020
PCBs	ND		0.050	0.020

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : Y2409.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 21:25  
 Operator : NG  
 Sample : PCB.BLKA131021-17.A.1000ml.100.5  
 Misc : NA.NA.NA.1  
 ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 23 10:27:23 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\YPCB0925.M  
 Quant Title :  
 QLast Update : Mon Sep 30 10:08:11 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.77	2.89	3254.0E6	6959.8E6	176.250	189.516
Spiked Amount	200.000				Recovery =	88.13% 94.76%
2) S DCB	12.04	12.48	976.4E6	2314.3E6	158.429	179.170
Spiked Amount	200.000				Recovery =	79.21% 89.58%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

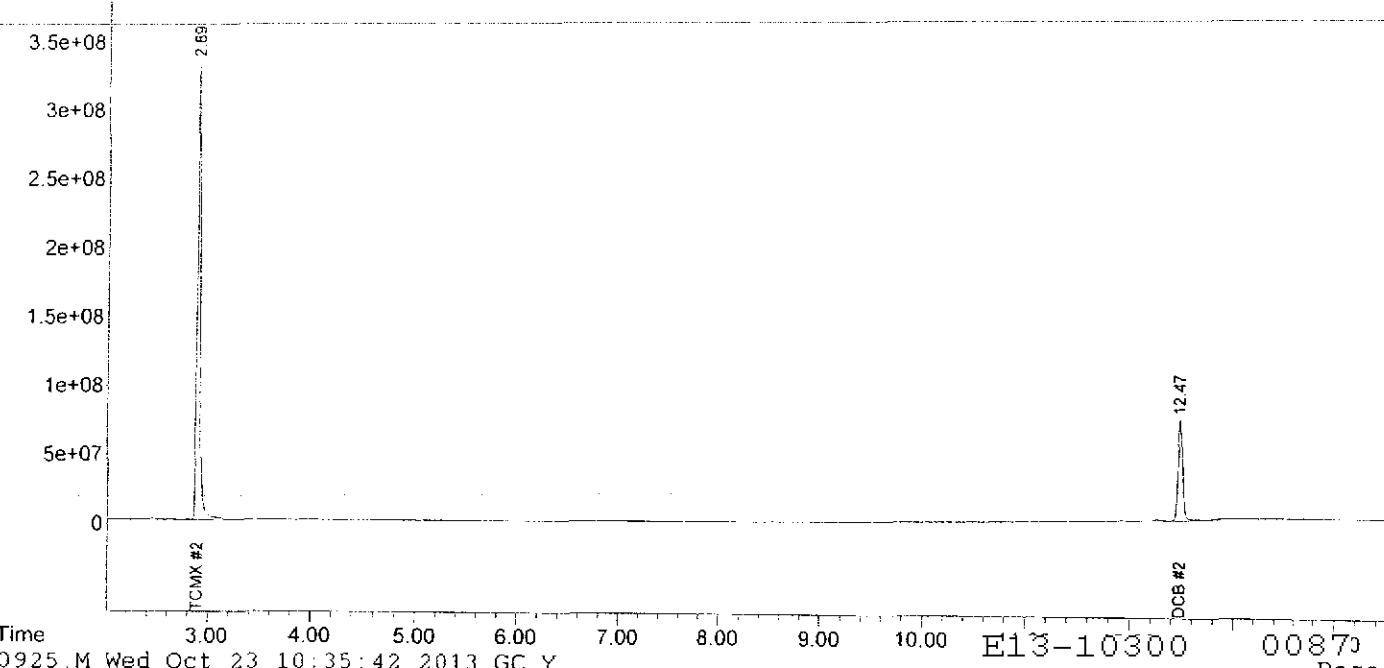
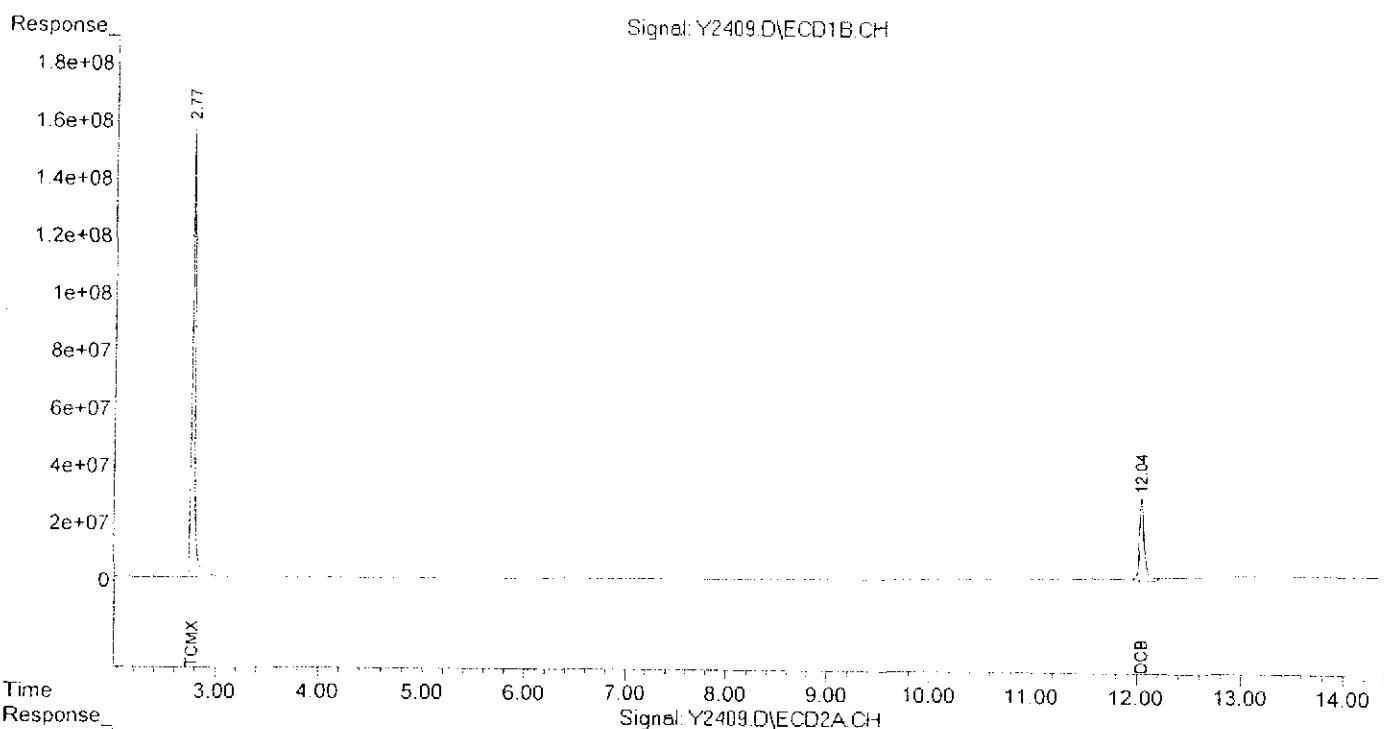
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : Y2409.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 21:25  
Operator : NG  
Sample : PCB.BLKA131021-17.A,1000ml,100,5  
Misc : NA,NA,NA,1  
ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 23 10:27:23 2013  
Quant Method : C:\MSDCHEM\1\METHODS\YPCB0925.M  
Quant Title :  
QLast Update : Mon Sep 30 10:08:11 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
 Data File : R4953.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 23 Oct 2013 13:58  
 Operator : NG  
 Sample : PCB, BLKA131023-07,A,1000ml,100,5  
 Misc : NA,NA,NA,1  
 ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 23 15:24:56 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>						
System Monitoring Compounds						
1) S TCMX	2.74	2.57	2398.6E6	4582.8E6	198.795	174.521
Spiked Amount	200.000			Recovery	=	99.40%
2) S DCB	12.09	11.95	620.6E6	1029.4E6	157.343	124.265
Spiked Amount	200.000			Recovery	=	78.67%
<hr/>						
Target Compounds						
Sum Aroclor-1016			0	0	N.D.	N.D.
Average Aroclor-1016					0.000	0.000
Sum Aroclor-1221			0	0	N.D.	N.D.
Average Aroclor-1221					0.000	0.000
Sum Aroclor-1232			0	0	N.D.	N.D.
Average Aroclor-1232					0.000	0.000
Sum Aroclor-1242			0	0	N.D.	N.D.
Average Aroclor-1242					0.000	0.000
Sum Aroclor-1248			0	0	N.D.	N.D.
Average Aroclor-1248					0.000	0.000
Sum Aroclor-1254			0	0	N.D.	N.D.
Average Aroclor-1254					0.000	0.000
Sum Aroclor-1260			0	0	N.D.	N.D.
Average Aroclor-1260					0.000	0.000
Sum Aroclor-1262			0	0	N.D.	N.D.
Average Aroclor-1262					0.000	0.000
Sum Aroclor-1268			0	0	N.D.	N.D.
Average Aroclor-1268					0.000	0.000
<hr/>						

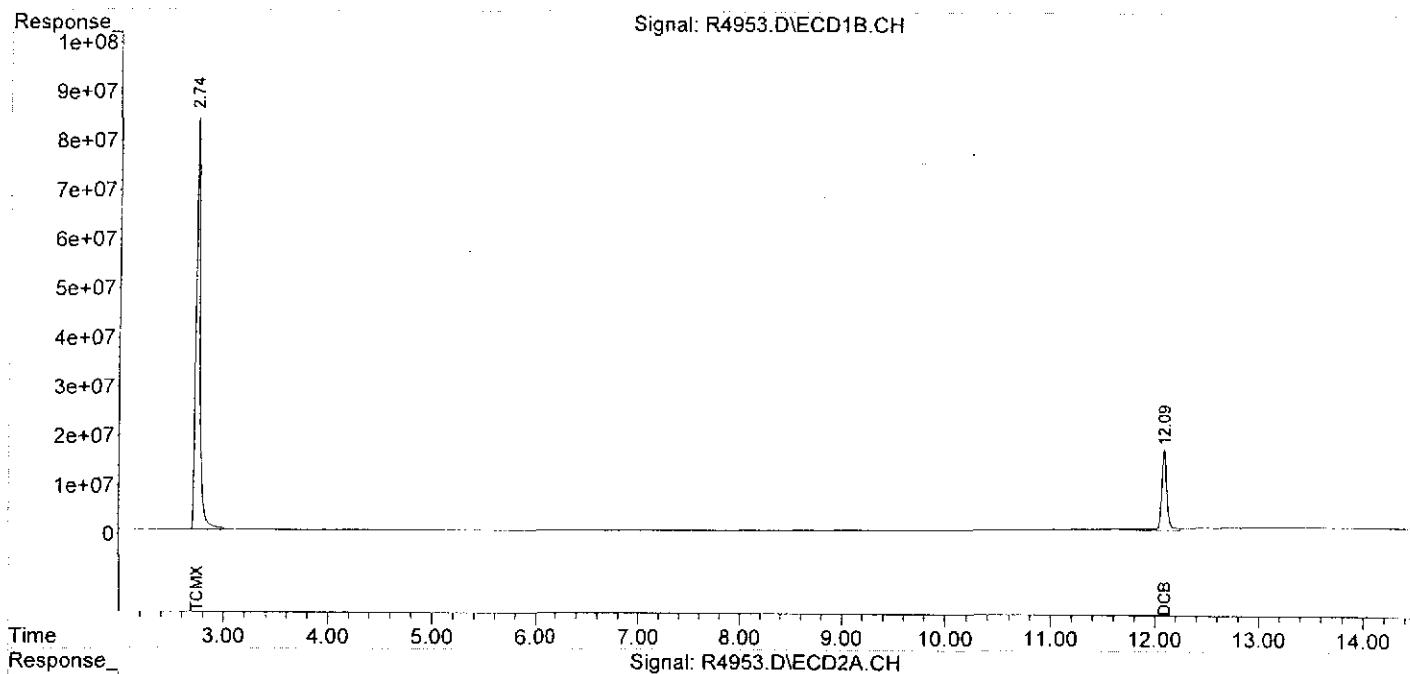
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-23-13\  
Data File : R4953.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 23 Oct 2013 13:58  
Operator : NG  
Sample : PCB, BLKA131023-07, A, 1000ml, 100, 5  
Misc : NA,NA,NA,1  
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 23 15:24:56 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



**INTEGRATED ANALYTICAL LABORATORIES****PCB's**

Lab ID: BLKS131021-07

Client ID: PCB

Date Received: NA

Date Extracted: 10/21/2013

Date Analyzed: 10/22/2013

Data file: R4922.D

GC Column: DB-5/DB1701P

Sample wt/vol: 5.00g

Matrix-Units: Soil-mg/Kg (ppm)

Dilution Factor: 1

% Moisture: NA

Compound	Concentration	Q	RL	MDL
Aroclor-1016	ND		0.040	0.016
Aroclor-1221	ND		0.040	0.016
Aroclor-1232	ND		0.040	0.016
Aroclor-1242	ND		0.040	0.016
Aroclor-1248	ND		0.040	0.016
Aroclor-1254	ND		0.040	0.016
Aroclor-1260	ND		0.040	0.016
Aroclor-1262	ND		0.040	0.016
Aroclor-1268	ND		0.040	0.016
PCBs	ND		0.040	0.016

D --- Dilution Performed

J --- Value Less than RL &amp; great than MDL

E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank

C --- Common laboratory contamination

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
 Data File : R4922.D  
 Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
 Acq On : 22 Oct 2013 15:28  
 Operator : JS  
 Sample : PCB, BLKS131021-07, S, 5.00g, 0, 20  
 Misc : NA, NA, NA, 1  
 ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
 Integration File signal 2: EVENTS2.E  
 Quant Time: Oct 24 16:43:49 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
 Quant Title :  
 QLast Update : Fri Oct 18 14:06:50 2013  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal #1 Phase : Signal #2 Phase:  
 Signal #1 Info : Signal #2 Info :

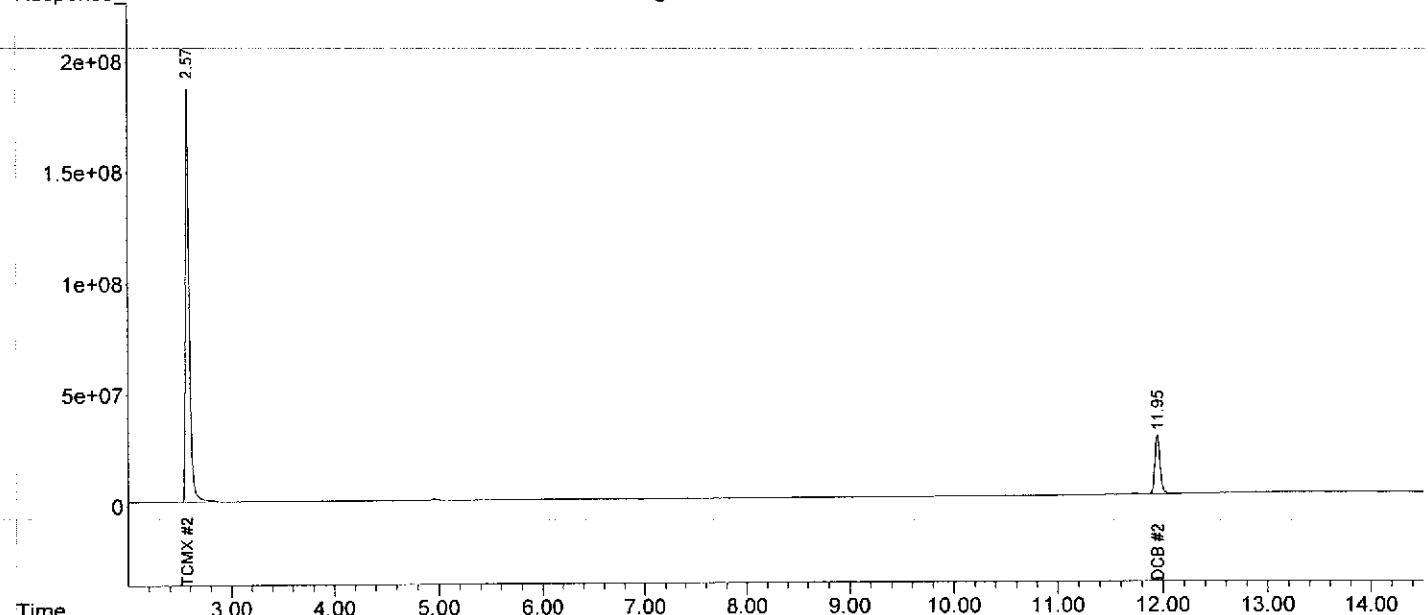
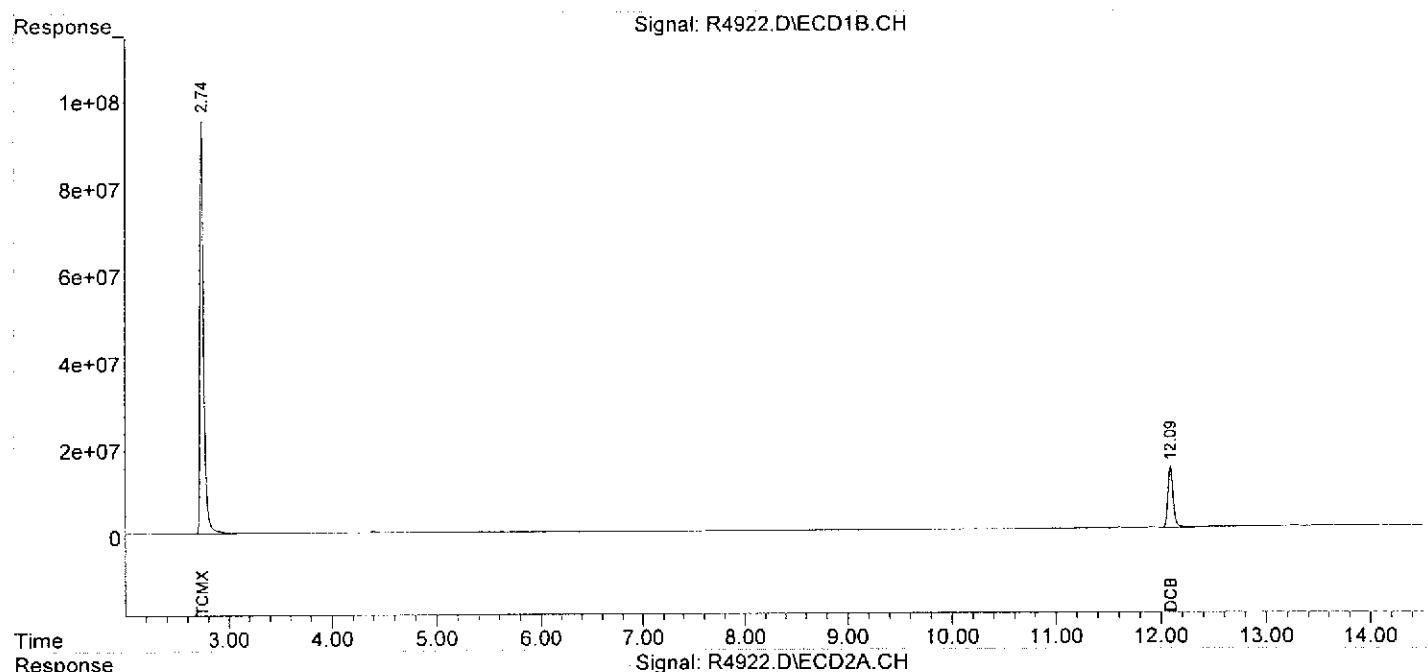
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng#1	ng#2
<hr/>							
	System Monitoring Compounds						
1) S TCMX		2.74	2.57	2388.6E6	4789.3E6	197.970	182.386
Spiked Amount	200.000			Recovery	=	98.98%	91.19%
2) S DCB		12.09	11.95	506.6E6	930.2E6	128.427	112.283
Spiked Amount	200.000			Recovery	=	64.21%	56.14%
<hr/>							
	Target Compounds						
Sum Aroclor-1016				0	0	N.D.	N.D.
Average Aroclor-1016						0.000	0.000
Sum Aroclor-1221				0	0	N.D.	N.D.
Average Aroclor-1221						0.000	0.000
Sum Aroclor-1232				0	0	N.D.	N.D.
Average Aroclor-1232						0.000	0.000
Sum Aroclor-1242				0	0	N.D.	N.D.
Average Aroclor-1242						0.000	0.000
Sum Aroclor-1248				0	0	N.D.	N.D.
Average Aroclor-1248						0.000	0.000
Sum Aroclor-1254				0	0	N.D.	N.D.
Average Aroclor-1254						0.000	0.000
Sum Aroclor-1260				0	0	N.D.	N.D.
Average Aroclor-1260						0.000	0.000
Sum Aroclor-1262				0	0	N.D.	N.D.
Average Aroclor-1262						0.000	0.000
Sum Aroclor-1268				0	0	N.D.	N.D.
Average Aroclor-1268						0.000	0.000
<hr/>							

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : C:\MSDCHEM\1\DATA\10-22-13\  
Data File : R4922.D  
Signal(s) : Signal #1: ECD1B.CH Signal #2: ECD2A.CH  
Acq On : 22 Oct 2013 15:28  
Operator : JS  
Sample : PCB, BLKS131021-07, S, 5.00g, 0, 20  
Misc : NA, NA, NA, 1  
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: EVENTS.E  
Integration File signal 2: EVENTS2.E  
Quant Time: Oct 24 16:43:49 2013  
Quant Method : C:\MSDCHEM\1\METHODS\RPCB1018.M  
Quant Title :  
QLast Update : Fri Oct 18 14:06:50 2013  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal #1 Phase : Signal #2 Phase:  
Signal #1 Info : Signal #2 Info :



## SAMPLE TRACKING

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Integrated Analytical Labs  
273 Franklin Rd  
Randolph, NJ 07869

Contact Us: 973 361-4252  
fax: 973 969-5288  
Web: www.ialonline.com

CUSTOMER INFO		REPORTING INFO		Turnaround Time (starts the following day if samples rec'd at lab > 5PM)													
Company: JMC Environmental Consultants, Inc.	REPORT TO:	James Clabby		*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE													
Address: 2109 Bridge Ave., Bldg. B	Address:	same															
Point Pleasant, NJ 07842																	
Telephone #: (732) 295-2144	Attn:																
Fax #: (732) 295-2150	FAX # (732) 295-2150																
Project Manager: James Clabby	INVOICE TO:	Aceto Corp.															
EMAIL Address: jclabby@jmcenterprise.com	Address:	4 Tri Harbor Court															
Sampler: Steve Kosch, Chris Cho	Port Washington, NY 11050																
Project Name: Arsynco	(with copy to: JMC Environmental (attn.: J. Clabby))																
Project Location (State): NJ	Attn: Ed Kelly																
Bottle Order #:	PO # 22126																
Quote #: SR041205	Sample Matrix																
DW - Drinking Water AQ - Aqueous WW - Waste Water																	
OI - Oil LIQ - Liquid (Specify) OT - Other (Specify)																	
S - Soil SL - Sludge SOL - Solid W - Wipe																	
Client ID	Depth (ft only)	Sampling		# container s	IAL #	ANALYTICAL PARAMETERS										# BOTTLES & PRESERVATIVES	
		Date	Time													HCl	NaNO3
CC-395 (5.0-6.0)	10/16/13 9:55	S	1	1	x												
TI-35 (4.0-5.0)	10:33	S	1	2	x												
CC-405 (5.0-6.0)	11:25	S	1	3	x												
BB-H3R (3.0-4.0)	11:50	S	1	4	x												
DD-43/EE-44/4.0-5.0)	1:30	S	1	5	x												
CC-44N (2.0-3.0)	1:50	S	1	6	x												
CC-44N (3.0-4.0)	1:51	S	1	7	x												
FF-43N (3.0-4.0)	3:01	S	1	8	x												
Known Hazard: Yes or No	Describe:	Cone. Expected:	Low	Med	High	MDL Req: GWQS (11/05) - SRS - SRS/IGW - SRS Residential - OTHER (SEE COMMENTS)											

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one):  IAL Courier  Client Courier  FedEx/UPS

Signature/Company	Date	Time	Signature/Company	Date	Time
Relinquished by: <i>[Signature]</i>	10/16/13	15:30	Received by: <i>[Signature]</i>	10/16/13	15:30
Relinquished by: <i>[Signature]</i>	10/16/13	17:05	Received by: <i>[Signature]</i>	10/16/13	17:05
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Comments:

10300

PAGE: 1 of 2

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK



**Integrated Analytical Labs**  
273 Franklin Rd  
Randolph, NJ 07869

Contact Us: 973 361-4252  
fax: 973 989-5288  
Web: [www.ialonline.com](http://www.ialonline.com)

CUSTOMER INFO		REPORTING INFO		Turnaround Time (starts the following day if samples rec'd at lab > 5PM)																	
Company: JMC Environmental Consultants, Inc.	REPORT TO:	James Clabby		*Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. **RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE																	
Address: 2109 Bridge Ave., Bldg. B	Address:	same																			
Point Pleasant, NJ 08742																					
Telephone #: (732) 295-2144	Attn:																				
Fax #: (732) 295-2150	FAX # (732) 295-2150																				
Project Manager: James Clabby	INVOICE TO:	Aceto Corp.																			
EMAIL Address: jclabby@jmcevironmental.com	Address:	4 Tri Harbor Court																			
Sampler: Steve Kosch, Chris Cho	Port Washington, NY 11050																				
Project Name: Arsynco	(with copy to: JMC Environmental (attn.: J. Clabby))																				
Project Location (State): NJ	Attn: Ed Kelly																				
Bottle Order #:	PO # 22126																				
Quote #: SR041205	Sample Matrix																				
DW - Drinking Water AQ - Aqueous WW - Waste Water																					
OR - Oil LIQ - Liquid (Specify) OT - Other (Specify)																					
S - Soil SL - Sludge SOL - Solid W - Wipe																					
Client ID	Depth (ft only)	Sampling				# container s	IAL #	ANALYTICAL PARAMETERS												# BOTTLES & PRESERVATIVES	
		Date	Time	Matrix	TCL PCB (8/982)												HCl	HNO3	MeOH	EtSO4	NaOH/ZnAc
FB-23		10/16/13	3:10	aq	2	9		x													
								x													
								x													
								x													
								x													
								x													
								x													
Known Hazard: Yes or No		Describe:		Conc. Expected:		Low	Med	High	MDL Req: GWQS (11/05) - SRS - SRS/GW - SRS Residential - OTHER (SEE COMMENTS)												

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

Carrier (check one):	IAL Courier	Client Courier	FedEx/UPS
Signature/Company			
Relinquish by:	10/16/13 15:30	Received by:	10/16/13 17:00
Relinquish by:	10/16/13 17:05	Received by:	10/16/13 17:05
Relinquish by:		Received by:	
Relinquish by:		Received by:	
Relinquish by:		Received by:	

Comments:

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Lab Case #

10300

PAGE: 2 of 2

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK



# PROJECT INFORMATION

## E13-10300: ARSYNCO

**To:** Jim Clabby  
 JMC Environmental Consultants  
 Fax: 1(732) 295-2150  
 EMail: jclabby@jmcenvironmental.com; ah

**Report To**

JMC Environmental Consultants  
 2109 Bridge Avenue  
 Building B  
 Point Pleasant, NJ 08742  
 Attn: Jim Clabby

**Bill To**

JMC Environmental Consultants  
 Aceto Corp.  
 4 Tri Harbor Court  
 Port Washington, NY 11050  
 Attn: Mr. Ed Kelly

Report Format	P.O. #	Received At Lab	TPHC Due	Verbal Due	Hardcopy Due
Reduced	22126	Oct 16, 2013 @ 17:05	NA	Oct 31, 2013	Nov 07, 2013 *

\* Any *Conditional or Hold* status will delay final hardcopy report sent date.

**Diskette Req.** SRP TXT

**\*\* QC Requirement (must meet): NJ SRS**

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
10300-001	CC-39S(5.0-6.0)	5.0/6.0	10/16/13@09:55	Soil	mg/Kg (ppm)	
10300-002	II-35(4.0-5.0)	4.0/5.0	10/16/13@10:33	Soil	mg/Kg (ppm)	
10300-003	CC-40S(5.0-6.0)	5.0/6.0	10/16/13@11:25	Soil	mg/Kg (ppm)	
10300-004	BB-43R(3.0-4.0)	3.0/4.0	10/16/13@11:50	Soil	mg/Kg (ppm)	
10300-005	DD-43/EE-44(4.0-5.0)	4.0/5.0	10/16/13@13:30	Soil	mg/Kg (ppm)	
10300-006	CC-44N(2.0-3.0)	2.0/3.0	10/16/13@13:50	Soil	mg/Kg (ppm)	
10300-007	CC-44N(3.0-4.0)	3.0/4.0	10/16/13@13:51	Soil	mg/Kg (ppm)	
10300-008	FF-43N(3.0-4.0)	3.0/4.0	10/16/13@15:01	Soil	mg/Kg (ppm)	
10300-009	FB-23	NA	10/16/13@15:10	Aqueous	mg/L (ppm)	

Sample #	Test	Status	QA Method	TAT	Holding Time Expires
001	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
002	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
003	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
004	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
005	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
006	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
007	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
008	TCL PCB	Analyze	8082A	STD/2 WKS	10/30/2013
009	TCL PCB	Analyze	8082A	STD/2 WKS	10/23/2013





Oct 18, 2013 @ 08:29

## PROJECT INFORMATION

E13-10300: ARSYNCO

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273 Franklin Road  
Randolph, NJ 07869  
Phone: 973 361 4252  
Fax: 973 989 5288

Page 2 of 2



IAL is a NELAP New Jersey Accredited Lab (14751) and maintains certification in connection with DEP, DOB, New York, PA, and Pennsylvania (68-00773) and Vessel Testing and related to E13-10300 0097

## INTEGRATED ANALYTICAL LABORATORIES, LLC

## SAMPLE RECEIPT VERIFICATION

CASE NO: E 13

10300

CLIENT: JMC

COOLER TEMPERATURE: 2° - 6°C: 

( See Chain of Custody)

## Comments

COC: **COMPLETE** / INCOMPLETE  
KEY

- = YES/NA  
 = NO

VOA received:  Encore  IGW - Methanol  
(check one)  Terra Core  No Preservative

- Bottles Intact  
 no-Missing Bottles  
 no-Extra Bottles

- Sufficient Sample Volume  
 no-headspace/bubbles in VOs  
 Labels intact/correct  
 pH Check (exclude VOs)<sup>1</sup>  
 Correct bottles/preservative  
 Sufficient Holding/Prep Time<sup>1</sup>
- Multiphasic Sample  
 Sample to be Subcontracted  
 Chain of Custody is Clear

<sup>1</sup> All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS: \_\_\_\_\_

SAMPLE(S) VERIFIED BY: INITIALS 

DATE 10/16/13

CORRECTIVE ACTION REQUIRED:

YES 

SEE BELOW

NO If COC is NOT clear, **STOP** until you get client to authorize/clarify work.

CLIENT NOTIFIED:

YES  Date/ Time: \_\_\_\_\_ NO 

PROJECT CONTACT:

\_\_\_\_\_

SUBCONTRACTED LAB:

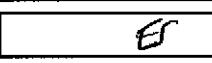
\_\_\_\_\_

DATE SHIPPED:

\_\_\_\_\_

ADDITIONAL COMMENTS: \_\_\_\_\_

VERIFIED/TAKEN BY:

INITIALS 

DATE 10/17/13

E13-10300

0098  
REV 03/2013

# **Laboratory Custody Chronicle**

**IAL Case No.**

**E13-10300**

**Client** JMC Environmental Consultants

**Project** ARSYNCO

**Received On** 10/16/2013@17:05

**Department:** GC

			<b><u>Prep. Date</u></b>	<b><u>Analyst</u></b>	<b><u>Analysis Date</u></b>	<b><u>Analyst</u></b>
TCL PCB	10300-001	Soil	10/21/13	Archimede	10/22/13	Justyna
"	-002	"	10/21/13	Archimede	10/22/13	Justyna
"	-003	"	10/21/13	Archimede	10/22/13	Justyna
"	-004	"	10/21/13	Archimede	10/22/13	Justyna
"	-005	"	10/21/13	Archimede	10/22/13	Justyna
"	-006	"	10/21/13	Archimede	10/22/13	Justyna
"	-007	"	10/21/13	Archimede	10/22/13	Justyna
"	-008	"	10/21/13	Archimede	10/22/13	Justyna
"	-009	Aqueous	10/23/13	Archimede	10/23/13	Justyna